

MBA Programme

Batch of 2023-2025

Vision

To form responsible leaders who are globally competent to lead a life based on values

Mission

- To provide a conducive learning environment for the integral development of individuals to develop the right attitude, relevant skills and needed knowledge to adapt to the corporate world
- To remain as a centre of learning by innovative pedagogy and appropriate academic strategies with exposure to industries.
- To contribute to the field of business education and industries through research, training, and consultancy

Program Educational Objectives

PEO1: Forming Responsible Leaders

PEO2: Holistic Human Development

PEO3: Domain Knowledge with Professional Competency

PEO4: Research Interest and Consultancy

Program Outcomes

PO1 - Integral development and Responsibility

PO2 - Critical Thinking and Problem-Solving Skills

PO3 - Interpersonal and Leadership skills

PO4 - Domain Knowledge

PO5 - Entrepreneurial Interest

PO6 - Ethical Consideration

PO7 - Research and Consulting for continuous learning

PO8 - Recent Development in Business: Local and Global Perspective

1. Courses

- Courses in the first and second semesters are common to all the students.
- Five areas of specialisation are offered: (i) Finance (ii) Marketing (iii) Human Resource Management (iv) IT and Analytics (v) Supply Chain Management
- The students will have to specialise in two (dual) functional areas of their choice, in the third and fourth semesters.
- Students will take 3 courses of 3 credits and 1 course of 1 credit from the two functional (specialisation/elective) areas in each semester. Thus, in the third and fourth semester, a student will have to earn 20 credits in each semester totaling 40 credits in the specialisation/elective.
- Any course in the specialisation/elective will be offered only when there is a minimum of 25 students enrolled.

2. Summer Internship Placement (SIP)

Students have to undergo eight (8) weeks of internship in a company during the time period fixed by the institute.

3. Project and Dissertation

Students will have to do a project during the fourth semester in their areas of specialisation.

4. Comprehensive Viva-Voce

During the end of the fourth semester, the students will attend a viva -voce and will be tested on the core areas of management and emerging trends.

For successful completion of MBA programme, a student must earn 108 credits as given below:

Semester	Courses & Credits					
	Core	Specialisation / Elective	Summer Internship Placement	Project and Dissertation	Comprehensive Viva Voce	Credits
I	24	-	-	-	-	24
II	26	-	-	-	-	26
III	6	20	5	-	-	31
IV	-	20	-	5	2	27
					Total	108

COURSE STRUCTURE FOR TWO - YEAR MBA PROGRAMME

2023 - 2025

		Title	Credits
I Semester		Personal Growth Lab (To be offered before the start the Programme)	
	23PBA1101	Corporate Ethics and Legal Aspects of Business	3
	23PBA1102	Managerial Economics	3
	23PBA1103	Financial Statement Analysis	3
	23PBA1104	Organizational Behaviour	3
	23PBA1105	Business Statistics	3
	23PBA1106	Business Communication - I	3
	23PBA1107	Introduction to Business Analytics	3
	23PBA1108	Innovation and Entrepreneurship	3
		Out Bound Training (3 Days)	
		Total	24
II Semester	23PBA2109	Financial Management	3
	23PBA2110	Marketing Management	3
	23PBA2111	Human Resource Management	3
	23PBA2112	Management Information Systems	3
	23PBA2113	Operations and Decision Making	3
	23PBA2114	Quantitative Techniques	3
	23PBA2115	Business, Government and Society	3
	23PBA2116	Spreadsheet for Managers	3
	23PBA2117	Business Communication - II	2
		SHEPHERD	
		Total	26
III Semester	23PBA3118	Global Strategy	3
	23PBA3119	Business Research	3
	23PBA3120	Summer Internship Placement	5
		Specialisation / Electives	20
		Total	31
IV Semester	23PBA4121	Project and Dissertation	5
	23PBA4122	Comprehensive Examination	2
		Specialisation / Electives	20
		Total	27

Finance

		Title	Credits
III Semester	23PBA3101	Security Analysis	3
	23PBA3102	Derivatives Management - I	3
	23PBA3103	Banking and Financial Services	3
	23PBA3104	Accounting Analytics	3
	23PBA3105	Financial Modelling using Spreadsheet - I	1
	23PBA3106	Mutual Funds	1
IV Semester	23PBA4101	Portfolio Management	3
	23PBA4102	Derivatives Management - II	3
	23PBA4103	Financial Modelling using Spreadsheet - II	3
	23PBA4104	Business Valuation	3
	23PBA4105	Personal Finance	1
	23PBA4106	Enterprise Risk Management	1

Marketing

		Title	Credits
III Semester	23PBA3201	Product and Brand Management	3
	23PBA3202	Services Marketing	3
	23PBA3203	Digital Marketing	3
	23PBA3204	Business to Business Marketing	3
	23PBA3205	Marketing of Financial Products and Services	1
	23PBA3206	Influencer Marketing	1
IV Semester	23PBA4201	Sales and Distribution Management	3
	23PBA4202	Retail Management	3
	23PBA4203	Marketing Analytics	3
	23PBA4204	International Marketing	3
	23PBA4205	Rural Marketing	1
	23PBA4206	Direct to Consumer Marketing	1

HR

		Title	Credits
III Semester	23PBA3301	Talent Acquisition	3
	23PBA3302	Learning and Development	3
	23PBA3303	Labour Codes – I	3
	23PBA3304	Learning Organizations	3
	23PBA3305	People Analytics	1
	23PBA3306	Team Management	1
IV Semester	23PBA4301	Performance and Compensation Management	3
	23PBA4302	Organizational Change and Development	3
	23PBA4303	Labour Codes – II	3
	23PBA4304	Cross Cultural Management	3
	23PBA4305	Negotiation Management	1
	23PBA4306	Talent Management	1

IT & Analytics

		Title	Credits
III Semester	23PBA3401	Machine Learning using Python	3
	23PBA3402	Data Mining and Data Warehousing	3
	23PBA3403	Big Data Analytics	3
	23PBA3404	Software Engineering	3
	23PBA3405	Structured Query Language (SQL)	1
	23PBA3406	Digital Commerce	1
IV Semester	23PBA4401	Deep Learning & Artificial Intelligence	3
	23PBA4402	Digital Analytics	3
	23PBA4403	Block Chain and Business Applications	3
	23PBA4404	Cyber Security	3
	23PBA4405	Data Visualization	1
	23PBA4406	Emerging Technologies	1

Supply Chain Management

		Title	Credits
III Semester	23PBA3501	Principles of Supply Chain Management	3
	23PBA3502	Supply Chain Data Management Analysis	3
	23PBA3503	Quality Management Using Statistical Data Analytics	3
	23PBA3504	Advanced Mathematical Techniques for Supply Chain Management	3
	23PBA3505	Lean Six Sigma	1
	23PBA3506	Digital Supply Chain Management	1
IV Semester	23PBA4501	Global Supply Chain Management	3
	23PBA4502	Service Process Management	3
	23PBA4503	Supply Chain Risk Modeling and Management	3
	23PBA4504	Enterprise Resource Planning	3
	23PBA4505	Multimodal Transportation	1
	23PBA4506	Introduction to Data Envelopment Analysis	1

CORE COURSES

Semester I



Core Course

23PBA1101 Corporate Ethics and Legal Aspects of Business | Sessions: 30 | Credits: 3

I. Course Description

This course imparts awareness to management professionals on how business has to be conducted in the society with codes, principles, ethics and legal aspects. Students will be introduced to the ethical theories and essentials of business laws.

II. Course Objectives

1. To explain the basic concepts of ethics
2. To use theoretical frameworks of ethics in business
3. To discuss the basic concepts relating to business law
4. To examine the various laws relating to contracts and sale of goods in business
5. To explain the important of intellectual property rights

III. Course Content

1. Ethics in business

- a. Basics of ethics
- b. The need for ethical intervention
- c. Positions for and against ethics in Business
- d. Unethical issues in contemporary business
- e. Values and Ethical Dilemma

2. Ethical Theories and Decision making

- a. Deontological
- b. Teleological
- c. Rights and Duties
- d. Justice and Fairness
- e. Moral Reasoning
- f. Kohlberg's Moral Development

3. Introduction to Legal aspects of Business

- a. Introduction to Business Laws
- b. Structure of the Indian Legal System
- c. Sources of Law and Legal System
- d. Indian Contract Law
- e. Fundamentals of contract laws
- f. Formation of Contracts
- g. Principles of Contract Laws
- h. Legality of Object/ Consideration;
- i. Performance of contract
- j. Discharge of contract
- k. Breach of contract
- l. Types of Contracts

4. Sale of Goods Act

- a. Introduction to Sale of Goods
- b. Principles of Sale of Goods
- c. Transfer of Ownership and Property
- d. Performance of contract
- e. Rights of Unpaid Seller

5. Intellectual Property Rights

- a. Patent Rights
- b. Copyright, Trademarks
- c. Geographical Indicators

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the basic concepts of ethics

CO2 Apply theoretical frameworks of ethics in business

CO3 Understand the basic concepts relating to business law

CO4 Examine the various laws relating to contracts and sale of goods in business

CO5 Understand the important of intellectual property rights

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	3	3	3		3			K2
CO 2	3	3	3	3		3	3		K3
CO3	3	3		3		3	3	3	K3
CO4	3	3		3		3	3	3	K4
CO5	3	3		3		3	3	3	K3

VI. Course Materials

a. Mandatory

1. Fernando, A.C., Muraleedharan, K.P., & Satheesh, E.K. (2019). Business ethics- An Indian perspective. (3rd ed.). Pearson Publications.
2. Ravinder, K. (2021). Legal aspects of business. (5th ed.). Cengage Learning.

b. Additional

1. Ferrell, O.C. & Paul. J. (2005). Business ethics. (6th ed.). Biztantra Publications.
2. Albuquerque, D. (2013). Business ethics. (5th ed.). Oxford University Press.
3. Velasquez, M. G. (2011). Business ethics - Concepts and cases. (6th ed.). Prentice Hall of India (P) Ltd.
4. Akhileshwar, P. (2018). Legal aspects of Business. (7th ed.). McGraw Hill.



Core Course

Course Code: 23PBA1102 | Title: Managerial Economics | Credits: 3

I. Course Description

This course combines macro and micro economics and its application in businesses. It considers the way in which various decision-making units in the economy make their consumption and production decisions and how these decisions are coordinated. Laws of demand and supply and the theoretical constructs of production and supply will give the students sufficient knowledge and skills to work in any market environment Viz; oligopoly and monopolistic.

II. Course Objectives

1. To acquire knowledge on monetary and fiscal policies and understand how it aids in the economic growth of the country.
2. To understand the nature of managerial economics and its linkage with other domains.
3. To apply the knowledge of demand and supply concepts in an organization/s.
4. To apply knowledge of the basic concepts in production and cost function.
5. To gain knowledge about the market structure and apply them in business.

III. Course Content

1. Introduction to Macroeconomics - Concepts and Theory

- a. Introduction to Macro Economics
- b. Concept and Measurement of National Income
- c. Business Cycle
- d. Fiscal and Monetary Policies
- e. Role of Market and Government

2. Theories of firms

- a. Theories of Profit Maximization
- b. Managerial theories of firm
- c. Behavioral theories of firm

3. Concept of Demand & Supply

- a. Law of Demand & Supply
- b. Elasticity of Demand & Supply
- c. Market Equilibrium

4. Production Theories and Cost Concepts

- a. Types of inputs and factors of production
- b. Production with one variable input and two variable inputs
- c. ISO cost lines
- d. Returns to Scale
- e. Cost in short-run and long run

5. Market Structure

- a. Perfect Competition
- b. Imperfect Competition
- c. Monopoly
- d. Monopolistic Competition
- e. Oligopoly

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Understand the relationships within microeconomics and macroeconomics
- CO2 Explain the relevance of different theories in explaining the behaviour of firms in various market structures.
- CO3 Utilize demand and supply models to assess the impact of external factors on business decision-making.
- CO4 Integrate production theories and cost concepts to formulate strategies for cost minimization and profit maximization.
- CO5 Examine case studies to evaluate the efficiency and competitiveness of markets based on their structures.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3	3						K2
CO 2		3	3	3					K3
CO3	3			3	3		3		K4
CO4		3		3				3	K5
CO5		3		3				3	K5

VI. Course Materials

a. Mandatory

1. Geetika, P. G. (2013). *Managerial Economics*. New Delhi: Tata McGraw Hill Education

b. Additional

1. Salvatore, D. (2011). *Managerial Economics*. New Delhi: Oxford University Press.
2. Jhingan, M. L. (2014). *Managerial Economics*. New Delhi: Vrinda Publications



Core Course

Course Code: 23PBA1103 | Title: Financial Statement Analysis | Credits: 3

I. Course Description

The objective of this course is to familiarize the students with the accounting process carried out in an organization. This course will give the students an understanding of the concepts in financial accounting and components of financial statements. The course will develop the skills in analyzing and interpreting the income statements, balance sheets and cash flow statements of the organizations.

II. Course Objectives

1. To understand the key concepts of financial accounting and preparation of financial statements.
2. To explain the concepts and contents of the financial statements
3. To justify the role of internal controls in a business
4. To classify the cash flow activities of a business
5. To evaluate the financial performance of an organisation based on its financial statements

III. Course Contents

1. Introduction to Accounting

- a. The accounting information system
- b. Accounting transactions and the accounting equation
- c. Double Entry accounting system
- d. Recording transactions in the accounting system
- e. Generally Accepted Accounting Principles

2. Corporate Financial Statements

- a. Business Forms
- b. Journal entries to financial statements
- c. Multi – step income statement
- d. Classification of Balance sheet
- e. Information beyond the financial statements
 - i) Notes to financial statements
 - ii) Auditors report
 - iii) Management’s Discussion and analysis

3. Internal Controls

- a. Cash Controls
 - Need of Bank reconciliations
 - Petty cash funds
- b. Accounts Receivables
 - Uncollectible – Direct write off and provision method
 - Estimating Bad debt – Percentage of sales & receivables approaches
- c. Inventory Costing Methods
 - FIFO, LIFO and Weighted average method
- d. Depreciation Methods
 - Straight Line Method
 - Reducing Balance Method

4. Analysis of Financial Statements

- a. Horizontal and Vertical Analysis
- b. Profitability Analysis
- c. Liquidity Analysis
- d. Solvency Analysis
- e. Dupont Analysis

5. Statement of Cash Flows

- a. Statement of cash flows indirect method
- b. Reporting cash flows from operating, investing and financing activities
- c. Analyzing a company's statement of cash flows
 - i) Free cash flow
 - ii) Cash flow adequacy ratio

IV. Course Outcome

By the end of this course a student will be able to

CO1 Understand the fundamental of business and basic concepts of accounting

CO2 Explain the concepts and contents of the financial statements

CO3 Justify the role of internal controls in a business

CO4 Classify the cash flow activities of a business

CO5 Evaluate the financial performance of an organisation based on its financial statements

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	3		3					K2
CO 2		3		3				3	K3
CO3		3		3					K3
CO4		3		3	2				K4
CO5		3		3	2		3		K5

IV. Course Materials

a. Mandatory

Wild, J. J., & Singh, P. (2021). *Financial Accounting Information for Decisions*. Chennai: McGrawHill.

b. Additional

Narayanaswamy, R. (2017). *Financial Accounting: A Managerial Perspective*. PHI Learning; 6th edition.



Core Course

Course Code: 23PBA1104 | Title: Organizational Behaviour | Credits: 3

I. Course Description

This course provides fundamental theories and concepts of individual behavior (intrapersonal), group behavior (interpersonal) and organizational systems. Group behavior facilitates experiential learning of approaches to decision making, leadership, negotiation, power and politics. In organizational system the focus is on structure, culture, climate and change management to improve organizational effectiveness.

II. Course Objectives

1. To introduce students to various OB models
2. To learn various aspects of work place attitudes, job commitment and motivation
3. To know the personality, perception and traits
4. To understand the process of conflict and negotiation
5. To explain the components of culture, climate and its importance

III. Course Content

1. Introduction to Organizational Behavior

- a. Nature and Discipline of OB
- b. Managing Diversity in the workplace
- c. Challenges and Opportunities for OB

2. Job satisfaction and involvement

- a. Attitudes at the Workplace
- b. Importance of Job satisfaction
- c. Emotions and moods

3. Intrapersonal Dynamics

- a. Personality and Traits
- b. Perception
- c. Judgements and Decision making
- d. Motivation Theories

4. Interpersonal Dynamics

- a. Foundations of Group behaviour
- b. Understanding work teams
- c. Leadership Theories
- d. Trust and Mentoring
- e. Power and Politics
- f. Conflict and Negotiation Management

5. The Organisation as a System

- a. Organization Culture
- b. Creating and sustaining culture
- c. Organizational Change
- d. Creating a culture for Change

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the nature and the discipline of organisational behaviour

CO2 Illustrate the importance of job satisfaction and job involvement

CO3 Understand the various factors that contribute to work motivation

CO4 Emphasize the relevance of working in teams in modern day organizations

CO5 Explain various organisation cultures and identify them with the real world

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	1	3	3		1			K2
CO 2	3	2	3	3		2			K5
CO3	3	2	3	3		1			K5
CO4	3	3	3	3		1			K5
CO5	3	2	3	3		1			K5

VI. Course Materials

a. Mandatory

Robbins, S. P. (2018). *Organizational behaviour*. (18th ed.). Pearson.

Luthans, F. (2011). *Organizational Behaviour-An evidence-based approach*. (12th ed.). McGraw-Hill.

b. Additional

Quick, J. C., Nelson, D. L., & Khandelwal, P. (2014). *Organizational behaviour* (7th ed.). Cengage Learning.



Core Course

Course Code: 23PBA1105 | Title: Business Statistics | Credits: 3

I. Course Description

This course aims to impart the students with knowledge of statistical tools and its application in business. Enhancing decision making skills using a statistical approach is the focus of this course. Students learn various tools and its application to make proper managerial decisions. The course aids the students to do decision-making during uncertain times.

II. Course Objectives

1. To understand the fundamental concepts of statistics and its relevance in business decision-making.
2. To analyse and interpret data through various statistical measures and structures.
3. To apply correlation and regression analysis to solve business problems.
4. To understand the concept of probability and its application to business.
5. To apply different probability distributions in managerial decision-making.

III. Course Content

1. Introduction to Statistics and its Business Application

- a. Introduction
- b. Methods for decision-making process
- c. The statistical implication in the decision-making process

2. Analyzing Data

- a. Data Structures – Collection – Presentation
- b. Evaluation of Mean – Standard Deviation
- c. Evaluation of Coefficient of Variation
- d. Time series and Index numbers
- e. Application to Business Decision Making

3. Correlation and Regression Analysis

- a. Concept of Correlation
- b. Application of correlation ideas in business
- c. Concept of Regression
- d. Application of Regression in Business using spreadsheet

4. Probability with Business Application

- a. Concept of Probability
- b. Application of Probability in Business

5. Random Variable – Probability Distributions

- a. Random Variable
- b. Binomial Distribution
- c. Poisson Distribution
- d. Normal Distribution
- e. Managerial Application

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the importance of statistical methods for the decision-making process and their applications in business.

CO2 Compare data structures and interpret data through various statistical measures.

CO3 Apply correlation and regression analysis to solve business problems.

CO4 Examine the concept of probability and its business applications.

CO5 Apply different probability distributions for managerial decision-making.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K3
CO 2		3		3			3	3	K4
CO3		3		3			3	3	K4
CO4		3		3				3	K4
CO5		3		3			3	3	K4

VI. Course Materials

a. Mandatory

Mariappan, P. (2019). *Statistics for business*. (1st ed.). Taylor & Francis Group.

b. Additional

Levin, R.L., Rubin, D.S., Siddiqui, M.S. & Rastogi, S. (2017). *Statistics for managers*. (8th ed.). Pearson Academic Publishing India.



Core Course

Course Code: 23PBA1106 | Title: Business Communication - I | Credits: 3

I. Course Description

This course will enable the learner to enhance the art of listening, speaking and writing during participation in academic and business contexts. It introduces students to the strategies employed to analyze their audience effectively to communicate within and outside the organization. The students will also be exposed to typical business communication situations to prepare effective responses for business messages and reports. Over all this course enables the students to prepare for interviews and improve their level of comprehension in the workplace.

II. Course Objectives

1. To help students comprehend the content effectively while listening
2. To enable students express thoughts accurately in conversations and discussions
3. To make students deliver well-supported presentations
4. To guide students draft business messages and emails
5. To prepare students to develop the skills required to succeed in an interview

III. Course Content

1. Organizational Listening

- a. Intensive & Extensive Listening
- b. Inferencing & Emotional Listening
- c. Listening Barriers
- d. Employee Listening

2. Business Writing

- a. Summarizing and Paraphrasing
- b. Academic Writing
- c. Business Messages, Emails & Letters
- d. Memos, notices, agenda and minutes, Business reports

3. Speaking

- a. Non-Verbal Communication
- b. Persuasive Speeches
- c. Product Pitch/Sales Talk
- d. Presentations

4. Business Etiquette

- a. Conversations
- b. Telephone Etiquette
- c. Cross Cultural Communication
- d. Netiquettes

5. Communication for Interview

- a. Resume, Application & Covering Letter
- b. Self-Introduction
- c. Group Discussion
- d. Interview strategies

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand and apply the appropriate listening strategies for comprehending information

CO2 Use the appropriate writing tool to prepare an effective essay, emails and business texts

CO3 Develop and deliver a persuasive speech on a given topic, incorporating ethical considerations and audience adaptation

CO4 Evaluate the effectiveness of different communication styles in diverse cultural contexts and determine the most appropriate approach for specific situations

CO5 Develop personalized elevator pitches, cover letters, and resumes that effectively communicate professional achievements and qualifications to potential employers.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3								K3
CO 2	3	3							K3
CO3	3	3				3			K6
CO4								3	K5
CO5	3		3						K6

VI. Course Materials

a. Mandatory

Chaturvedi, P. D. (2020). *Business communication - Skills, concepts and applications*. Pearson India Education Services Pvt. Ltd.

b. Additional

1. Mukerjee, H, S. (2016). *Business communication - Connecting at work*. (2nd ed). Oxford University Press.

2. Singh, M. R. (2016). *Business Communication*. Oxford University Press.



Core Course

Course Code: 23PBA1107 | Title: Introduction to Business Analytics | Credits: 3

I. Course Description

The course aims to prepare students to provide adequate knowledge of Business Analytics that can be used for problem solving and decision making in business. This course introduces the students to basics of Python programming and data visualization; thereby enhancing their programming and analytical skills.

II. Course Objectives

1. To understand types of analytics and its uses.
2. To learn the concepts of KPI and its importance in business environment.
3. To learn and apply the basics programming skills of Python Program.
4. To examine the different python Libraries and its usage for data analysis.
5. To apply the techniques of data visualization using Tableau.

III. Course Content

1. Business Analytics

- a. Data Driven Strategies
- b. Business Intelligence
- c. Types of Analytics
- d. Different models in Analytics
- e. Building an Analytics Capability Model

2. KPI in BA

- a. Internal and external process of BA
- b. Key Performance Indicators
- c. Developing KPI
- d. KPI for different Sectors
- e. Data Hackathon

3. Python - I

- a. Basics, Variables, Operators, Data types, Lists
- b. Tuples, Dictionary
- c. Control Statements
- d. If, if else, Switch, Looping
- e. Directory

4. Python - II

- a. Functions, Modules, Files, Exception
- b. Python Libraries
- c. Programs using Python Libraries
- d. Pre-processing data
- f. Exploratory Data Analysis

5. Data Visualization

- a. Tableau Menu
- b. Data Sources
- c. Extract data
- d. Data join and blending
- e. Worksheets with tableau
- f. Sorting, filtering and Charts

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Explain different analytics types to real-world business scenarios.
- CO2** Identify relevant KPIs for different business Sectors
- CO3** Apply foundational Python basic codes for programming constructs.
- CO4** Use Python libraries for data analysis
- CO5** Analyse datasets using tableau visualizations

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	3	3	3				3	K3
CO 2	3	3	3	3	2		3		K4
CO3	3	3	3	3			3	3	K2
CO4	3	3		3	2		3	3	K4
CO5	3	3		3			3	3	K5

VI. Course Materials

a. Mandatory

- Hardoon,D.R., & Galit, S. (2013). *Getting started with Business analytics*. CRC Press.
Rao, N. (2018). *Core Python programming* (2nd ed.). DreamTech Press.

b. Additional

1. Davenport,H. T., Harris, G. J., & Morison, R. (2010). *Analytics at work: Smarter decisions, better results*. CRC Press.
2. Kumar, D. U. (2017). *Business analytics – The science of data driven decision making*. Wiley.
3. Martin, B.C. (2018). *Python - The complete reference*. Tata McGraw Hill.



Core Course

Course Code: 23PBA1108 | Title: Innovation and Entrepreneurship | Credits: 3

I. Course Description

The major objective of the course is to give the students a hands-on, real-life experience on the why, what, how, and when to create a startup. The course challenges the participants to look at challenges - innovate, and discover a product or a service either a commercial or social startup

II. Course Objectives

1. To explore the concepts of entrepreneurship and startups, distinguishing their origins and understanding the principles of design thinking.
2. To develop ideation skills for both business and social startups, including idea assessment, validation, and market analysis.
3. To understand the components of a business plan, utilize the Business Canvas Model, and integrate major business domains for effective modeling.
4. To gain knowledge of fund raising and valuation techniques, analyze the role of government in promoting entrepreneurship, and create a detailed business plan.
5. To identify the challenges in entrepreneurship, cultivate an intrapreneur mindset, practice negotiation techniques.

III. Course Content

1. Entrepreneurship and Start-ups

- a. Entrepreneurship – a brief look at its origins v/s Startups
- b. Design thinking -intro
- c. Stages in design thinking
- d. Tools for effective design thinking process
- e. Design thinking for startups -exercise.

2. Ideation for business and social startups

- a. Ideation
- b. Idea -Assessment
- c. Idea -Validation
- d. Market Assessment and Competitor Analysis

3. Business Planning

- a. Building blocks of a business plan – Business Canvas Model
- b. Integrate major business domains for effective modeling
- c. Scaling up business models in a volatile environment
- d. Fundamentals of legal foundation – MSME/LLP/Pvt/Public - Company registration, IPR's, compliances

4. Fund raising and valuation

- a. Business Valuation
- b. Techniques and methods of fund raising
- c. Role of Central Government and State Government in promoting Entrepreneurship

d. Business plan Framework

5. Challenges in Entrepreneurship

- a. Intrapreneur Mindset
- b. Negotiation Techniques
- c. Scaling up or Exit – when and how

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Compare entrepreneurship and startups, applying design thinking principles for effective problem-solving.

CO2 Evaluate business ideas through ideation, idea assessment, validation, and comprehensive market analysis.

CO3 Develop a detailed business plan using the Business Canvas Model and integrate major business domains for effective modeling.

CO4 Understand fund raising , valuation techniques and the role of government in promoting entrepreneurship.

CO5 Apply an intrapreneur mindset and negotiation skills during the preparation of business canvas

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3	3				K2
CO 2		3		3	3	2			K5
CO3	2			3	3	2			K6
CO 4				3	3	2		3	K3
CO 5				3	3		2		K3

VI. Course Materials

a. Mandatory

Ries, E. (2011). *The lean start-up*. Crown Business.

b. Additional

1. Thiel, P. & Blake, M. (2014). *Zero to one: notes on startups, or how to build the future hardcover*. Crown Business.

2. Khanka, S.S. (2012). *Entrepreneurial development*. S. Chand & Co. Ltd.

CORE COURSES

Semester II



Core Courses

Course Code: 23PBA2109 | Title: Financial Management | Credits: 3

I. Course Description

The course is to familiarize students with the four major decision areas of finance, viz. investment, financing, earnings distribution and liquidity decisions. Subsequently, the students will be offered an integrated view of finance decisions through the process of valuation and risk management. The course aims at sharpening the financial decision-making skills of the participants.

II. Course Objectives

1. To know the importance of time value of money
2. To compute cost of capital
3. To evaluate the investment proposals using capital budgeting techniques
4. To examine the capital structure decisions
5. To analyse the Working capital requirement

III. Course Content

1. Introduction to Financial Management

- a. Goals of Financial Management
- b. Finance Function
- c. Financial Markets & Financial Instruments
- d. Time Value of Money

2. Cost of Capital

- a. Cost of Capital
- b. Factors influencing the cost of capital
- c. Specific cost of capital
- d. Weighted average cost of capital

3. Investment Decisions

- a. Nature and Types of Investment Decisions
- b. Investment Evaluation Criteria

4. Capital Structure

- a. Optimal Capital Structure
- b. Capital Structure Theories
- c. EBIT - EPS approach
- d. Leverage

5. Sources of short-term funds

- a. Working Capital
- b. Estimating the Working Capital Requirement
- c. Managing Cash
- d. Managing Receivables

IV. Course Outcomes

By the end of this course a student will be able to:

CO1 Analyse how changes in interest rates and compounding frequencies affect the outcomes of Time value of money calculations and make informed

CO2 Evaluate the appropriateness of the cost of capital for discounting cash flows, assessing project feasibility, and making financing decisions.

CO3 Apply various capital budgeting methods, to assess the feasibility and profitability of investment opportunities.

CO4 Evaluate the trade-offs between debt and equity financing, to make capital structure decisions

CO5 Apply working capital management techniques to optimize the balance between current assets and liabilities.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	3		3			2	1	K4
CO 2	2	3		3	3	3			K5
CO3	2	3		3	3		2		K3
CO 4	2	3		3	3	3	2	1	K5
CO 5	2	3		3	3			1	K3

VI. Course Materials

a. Mandatory

Khan M.Y. & Jain P.K. (2019). *Financial management - Text, problems and cases*. (8th ed.). McGraw Hill Education (India) Private Limited.

b. Additional

1. Brigham, E.F. & Ehrhardt, M.C. (2010). *Financial management*. (13th ed.). Cengage Learning.
2. Chandra, P.N. (2019). *Financial management - Theory and practice*. (10th ed.). McGraw Hill Education (India) Pvt. Ltd.
3. Pandey, I.M. (2015). *Financial management*. (11th ed.). Vikas Publishing House Pvt. Ltd.



Core Course

Course Code: 23PBA2110 | Title: Marketing Management | Credits: 3

I. Course Description

The course helps the students to understand the basic concepts in marketing. The course covers marketing approaches, marketing environment, Segmentation, Targeting and Positioning , consumer behavior, product, pricing, place and promotion mix and emerging trends in marketing.

II. Course Objectives

1. To understand the fundamental marketing concepts, approaches to marketing, and the factors influencing the marketing environment.
2. To demonstrate an understanding of the consumer markets and buyer behaviour.
3. To identify the product and pricing strategies.
4. To explain the components of distribution and promotion mix.
5. To learn the emerging trends in marketing.

III. Course Content

1. Introduction to Marketing

- a. Core Marketing Concepts
- b. Approaches to Marketing
- c. Value Philosophy
- d. Marketing Environment
- e. Market Demand

2. Consumer Markets and Buyer Behavior

- a. Characteristics affecting Consumer Behavior
- b. Psychological Processes
- c. Buying Decision Behavior and the Buying Decision Process
- d. Market Segmentation, Market Targeting, Differentiation and Positioning

3. Creating Value: Product and Price Mix

- a. Product Levels
- b. Product Classifications
- c. The New Product Development Process
- d. Product Life-Cycle Strategies
- e. Pricing Strategies

4. Delivering and Communicating Value

- a. Marketing Channels
- b. Levels of Distribution
- c. Advertisements
- d. Sales Promotions
- e. Public Relations

- f. Direct Marketing
 - g. Personal Selling
- 5. Emerging Trends in Marketing**
- a. Digital Marketing
 - b. Green Marketing
 - c. Content Marketing
 - d. Affiliate marketing
 - e. Crowd Sourcing
 - f. Direct to Consumers

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** List core marketing concepts, approaches to marketing, and key elements of the marketing environment.
- CO2** Infer the underlying principles affecting consumer behavior.
- CO3** Analyse the product and pricing strategies for different market conditions.
- CO4** Analyse the distribution and promotion mix variables.
- CO5** Examine the importance of emerging trends in marketing.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		2		3				2	K1
CO 2		2	1	3		1	1	2	K2
CO3		2		3		1		2	K4
CO 4	1	2		3		1		2	K4
CO 5		2	1	3	2		1	3	K5

VI. Course Materials

a. Mandatory

Kotler, P., Armstrong, G. & Agnihotri, P. (2018). *Principles of marketing*. (17th ed.). Pearson Education.

b. Additional

1. Ramaswamy, V.S. & Namakumari, S. (2018). *Marketing management: Indian context – Global perspective*. (6th ed.). SAGE Publications India Pvt. Ltd.
2. Kumar, A.N. & Meenakshi, N. (2016). *Marketing management* (3rd ed.). Vikas Publishing House.



Core Course

Course Code: 23PBA2111 | Title: Human Resource Management | Credits: 3

I. Course Description

This course focus on all aspects of managing people at work: planning, job analysis, recruitment and selection, training and development, performance management, remuneration, benefits and career development.

II. Course Objectives

1. To understand of the fundamental concepts and functions of human resource management.
2. To recognize the significance of human resource planning and become familiar with job analysis methods.
3. To learn about the recruitment and selection processes, as well as effective placement strategies.
4. To develop skills in designing various training and development methods.
5. To explore different compensation and performance appraisal methods

III. Course Content

1. Human Resource Management

- a. HRM trends
- b. Functions of HRM
- c. HRM Models

2. Human Resource Planning

- a. Introduction to Human Resource Planning
- b. Job Analysis
- c. Job Description
- d. Job Specification
- e. Job Designing

3. Recruitment and Selection Process

- a. Sources and Steps in Recruitment
- b. Selection Methods
- c. Interviews Types
- d. Placement and Induction

4. Training and Development

- a. Training Need Analysis and Methods
- b. Process of training and development
- c. Career planning and development

5. Performance and Reward Management

- a. Performance Appraisal Process
- b. Assessment centers, MBO, 360-degree appraisal
- c. Review of Performance appraisal
- d. Compensation and Types
- e. HR Accounting & Audit

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Understand HRM trends, Functions, and Models
- CO2** Apply HR planning concepts, Understand Job Analysis
- CO3** Demonstrate Recruitment and Selection Skills
- CO4** Develop Training Plans, Analyze Training Needs
- CO5** Assess and Improve Performance and Reward Systems

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	1	2	3				2	K4
CO 2	1	3	2	3		2			K3
CO3	3	3	2	3	2				K3
CO4	2	3	3	3	2	2	3		K6
CO5	1	3	2	3	2	2	2	3	K5

VI. Course Materials

a. Mandatory

Dessler, G. (2018). *Human resource management*. (15th ed.). Pearson.

b. Additional

Sharma R.C., & Sharma, N. (2016). *Human resource management*. (1st ed.). Sage.

Durai, P. (2016). *Human resource management*. (2nd ed.). Pearson.



Core Course

Course Code: 23PBA2112 | Title: Management Information Systems | Credits: 3

I. Course Description

Management Information Systems is an applications-oriented course that provides an overview of the role of information systems in business. This course deals information systems in business, functional systems and software development life cycle. It also introduces current technologies used in the different fields of business.

II. Course Objectives

1. To comprehend the various roles of digital systems in modern organizational environments and their application in online commercial transactions.
2. To assess the integration of information technology in supporting and enhancing business functions and decision-making processes.
3. To develop a critical understanding of the methodologies and strategies involved in creating and managing software projects.
4. To explore the business implications of new technological innovations and their relevance to maintaining competitive advantage.
5. To provide strategic information system for a data driven decision making.

III. Course Content

1. Information Systems in Business

- a. Types of Information
- b. Data Resource Management
- c. Virtual Company
- d. Knowledge Creating Company
- e. E- Commerce and Payment Processes

2. Enterprise Business System

- a. Enterprise collaboration system
- b. Marketing Information System,
- c. Human Resource Information System
- d. Online Accounting Systems

3. Functional Business Systems

- a. Customer Relationship Management
- b. Enterprise Resource Planning
- c. Supply Chain Management
- d. Executive Information Systems
- e. Expert Systems

4. System Development Process

- a. Software Development Life Cycle
- b. Software Project Management
- c. App Design

5. Emerging Technologies in Business

- a. Business Analytics, Machine and Deep Learning
- b. AI and Robotics
- c. Cloud and mobile Computing, IoTs
- d. Block chain and FinTech
- e. Cyber Security

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Classify and critically appraise the integration of digital systems within organizational frameworks, particularly for e-commerce operations.

CO2 Analyze functional business systems like HRIS, Marketing IS and accounting IS which enhances organizational performance.

CO3 Apply principles of the systems development life cycle and project management to effectively oversee software development initiatives.

CO4 Assess the business impact of emergent technologies and synthesize strategies for leveraging these advancements for competitive advantage.

CO5 Analyze business requirements to devise strategic information system solutions that boost administrative performance.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3		1	2		K4
CO 2	1	3	3	3		1	2		K5
CO3	1	3		3	1		3		K5
CO 4	1	3		3	1		2	3	K5
CO 5				3		1	3	3	K5

VI. Course Materials

a. Mandatory

Behl, R., O'Brien, J.A., & Marakas, G.M., (2019). *Management information systems*. (11th ed.). McGraw Hill Education (India) Private Limited.

b. Additional

Laudon, K., & Laudon, P.J. (2020). *Management information systems: Managing the digital firm*. (16th ed.). Prentice Hall of India Private Limited.



Core Course

Course Code: 23PBA2113 | Title: Operations and Decision Making | Credits: 3

I. Course Description

This course helps the students to learn the basic concepts of operations management and decision-making. It will facilitate the understanding of product and service design, operational constraints and project management techniques.

II. Course Objectives

1. To understand the key aspects of operations management
2. To identify product and service design with an understanding of legal, ethical, and global considerations.
3. To explain capacity planning and manage operational constraints and resources effectively.
4. To analyze the process selection, facility layout, and quality control for operational improvement.
5. To employ decision science tools for optimal scheduling, inventory control, and project management techniques.

III. Course Content

1. Introduction to Operations Management

- a. Introduction
- b. Production of goods versus providing services
- c. Process Management
- d. Operation Strategy

2. Product and a Service design

- a. Introduction
- b. Idea generation
- c. Legal and ethical consideration
- d. Global product and service design
- e. Designing for production
- f. Service design

3. Strategic capacity planning for production and services

- a. Capacity Design
- b. Determinants of effective capacity
- c. Forecasting capacity requirements
- d. Constraint management
- e. Evaluating alternatives

4. Analysis of Processing, facility layout, job design, planning, and quality

- a. Process selection
- b. Resource organization
- c. Product layout
- d. Job Design
- e. Need for location decisions

f. Statistical Process Control

5. Decision Sciences

- a. Scheduling Model
- b. Sequencing Model
- c. Inventory Control
- d. PERT and CPM

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the process management and operation strategies.

CO2 Evaluate the product and service designs from ideation to ethical and legal implications

CO3 Assess future needs, constraints and operational alternatives.

CO4 Analyse the process selections, resources, layout and job designs

CO5 Examine the models of scheduling and sequencing using the tools

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3		1	2	2	K2
CO 2	2	3	3	3		1	2	2	K4
CO3	1	3		3	2		3	2	K5
CO4	1	3		3	1		2	3	K4
CO5				3		1	3	3	K4

VI. Course Materials

a. Mandatory

Stevenson, W. (2015). *Operations management*. (12th ed.). McGraw Hill Education.

b. Additional

Chary, S.N. (2019). *Production and operations management*. (6th ed.). McGraw Hill Education (India) Private Limited.



Core Course

Course Code: 23PBA2114 | Title: Quantitative Techniques | Credits: 3

I. Course Description

This curriculum deals with the importance of mathematical concepts and modeling techniques for managerial decision making.

II. Course Objectives

1. To comprehend the fundamental principles of matrix theory
2. To apply calculus techniques for solving managerial problems
3. To apply mathematical models to solve complex managerial problems
4. To analyze transportation modelling techniques
5. To appraise various assignment modelling techniques in decision-making

III. Course Content

1. Matrix Application to Business

- a. Basics of Matrix
- b. Concept of Linear System of Equations
- c. Formulation of Business Problems
- d. Solving using TORA

2. Functions and their Applications to Business

- a. Introduction
- b. Functions related to Management
- c. Optimizing Functions using differential calculus

3. Introduction to Operations Research

- a. Mathematical Formulation of LPP
- b. TORA Application

4. Transportation Models

- a. Introduction to Transportation models
- b. Decision making using transportation models

5. Assignment models

- a. Introduction to Assignment model
- b. Decision making using Assignment model

IV. Course Outcomes

By the end of this course a student will be able to

1. Apply the concept of matrix in business situations
2. Utilize the application of calculus in decision-making
3. Apply the mathematical modeling to solve the business problems
4. Analyse the use of modeling techniques in transportation
5. Examine the assignment modeling in decision-making

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3					K4
CO 2		3		3				3	K3
CO3		3		3			3	3	K4
CO4		3		3	3		3	3	K5
CO5		3		3	3			3	K5

IV. Course Materials

a. Mandatory

1. Mariappan, P. (2015). *Business Mathematics*. (1st ed.). Pearson India Education Services Pvt.Ltd.
2. Mariappan, P. (2013). *Operations Research – An Introduction*, (1st ed.). Darling Kindersley (India) Pvt.Ltd.

b. Additional

N. D Vohra, Hitesh Arora (2021), *Quantitative Techniques in Management*, 6th Edition, McGrawHill



Core Course

Course Code: 23PBA2115 | Title: Business, Government and Society | Credits: 3

I. Course Description

The course aims to have an in-depth understanding of business, government and society in relation to each other. It also helps the students to understand various business formats and its suitability in various business sectors. The students will also appreciate the influence of the government in business and its effect on the society.

II. Course Objectives

1. To understand Indian business and industry from a historical perspective
2. To recognize the various types of environment which impacts business and industry
3. To learn the different types of organizational formats
4. To understand the impact of environmental regulations
5. To examine the power of business and corporate governance

III. Course Content

1. Business Evolution in India and Governments

- a. Study of business evolution in India- sectoral preference/ preferences based on geography, religion etc.
- b. Governments' role in assisting growth of Indian business.
- c. Study of sectoral models in major domains such as textiles, consumer goods and IT etc.

2. External Environment of Business

- a. Political
- b. Economical
- c. Social
- d. Technological
- e. Legal
- f. Environment

3. Forms of Business Organization

- a. Sole Proprietorship, Partnership, LLP, Joint Stock Companies – Public and Private.
- b. Government regulations relating to business formats.
- c. Regulating businesses and its effect on society.

4. Corporates and the Natural Environment

- a. Industrial pollution and environmental regulations.
- b. Managing environmental quality.
- c. Legal framework and ESG.

5. Business Power

- a. Nature of Business power and Levels
- b. Spheres of Corporate power
- c. Perspectives of Business power- national and global.
- d. Corporate Governance.

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the evolution of business, policies and programs

CO2 Analyse the impact of different environments of business on society

CO3 Compare different forms of business and its implications

CO4 Examine the impact of regulations on industries and environment

CO5 Appraise the different spheres of corporate power in organisations

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1	2	1	1	2	2	3	3	K2
CO 2	2	2	2	3	3	3	2	2	K4
CO3	1	2	1	3	3			2	K4
CO 4	3	3			2	3	2	2	K4
CO 5	2	3	3		1	3	2	2	K5

VI. Course Materials

a. Mandatory

Steiner, J.F., & Steiner, G.A. (2012). *Business, Government and Society: A managerial perspective - Text and cases*. (13th ed.). The Mc Graw Hill Companies.

b. Additional

Materials to be given by course coordinator.



Core Course

Course Code: 23PBA2116 | Title: Spread Sheet for Managers | Credits: 3

I. Course Description

This course equips the students with skills for the effective use of Spread sheet in order to prepare data report, analyze data set, presenting it effectively through MS Excel.

II. Course Objectives

1. To learn the basics of worksheet manipulation
2. To explore the financial and logical functions in Excel
3. To study lookup, reference, mathematical, statistical and financial functions.
4. To apply the various data tools for analysis
5. To examine data analysis tools and its applications

III. Course Content

1. Work sheet Manipulation

- a. Home
- b. Insert
- c. Page Layout
- d. Categories of functions
- e. Formulas
- f. Formatting

2. Functions in Spreadsheet - I

- a. Financial
- b. Logical
- c. Data and Time

3. Functions in Spreadsheet - II

- a. Lookup and Reference
- b. Mathematical
- c. Statistical
- d. Financial

4. Data Tools

- a. Sparklines
- b. Get Data
- c. Data Validation
- d. Text to Columns
- e. Remove Duplicates
- f. Consolidate

5. Data Analysis

- a. Sort and Filtering
- b. Conditional Formatting
- c. Pivot Tables
- d. What if and Scenario analysis
- e. Group and ungroup

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Demonstrate the ability to effectively utilize Excel's formatting and page layout tools to enhance data presentation and organization.

CO2 Evaluate the efficiency and appropriateness of Excel functions for different tasks and determine the most suitable functions based on data analysis requirements.

CO3 Assess data using mathematical, statistical, and financial functions to derive meaningful conclusions and insights.

CO4 Evaluate the efficiency and appropriateness of data tools in Excel and choosing the most suitable tools for different data management scenarios.

CO5 Design custom scenarios for predicting outcomes and analyzing the impact of different variables on data.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3			3		K2
CO 2		3		3	2		3		K5
CO3		3		3	2		3		K5
CO 4		3		3	2		3		K5
CO 5		3		3			3		K6

VI. Course Materials

a. Mandatory

Walkenbach, J. (2015). *Microsoft excel 2016 Bible*. Wiley Publishing.

b. Additional

Peter, W. (2013). *Office 2013: All-in-one for dummies*. Wiley Publishing.



Core Course

Course Code: 23PBA2117 | Title: Business Communication - II | Credits: 2

I. Course Description

In this course the learners would be taught to apply the acquired skills in the business scenario. The focus of the course would be to prepare the learner for corporate communication. They would also learn the techniques employed for conflict management and team communication. Inputs on organizing business meeting, and strengthening connections in diverse workplace would be given.

II. Course Objectives

1. To learn about the flow of information and communication in an organization.
2. To identify the communication strategies to handle conflicts in work place.
3. To acquire the strategies to plan, organise and participate in business meetings.
4. To know the attributes and communication behaviour most frequently observed in leaders.

III. Course Content

- 1. Organizational Communication**
 - a. Flow of Communication
 - b. Communication Climate
- 2. Specific Communication Needs**
 - a. Communication for Interpersonal Relationship
 - b. Communication for Conflict Management
- 3. Professional Communication**
 - a. Dynamics of Business Meeting
 - b. Ethics in Business Communication
- 4. Leadership Communication**
 - a. Soft skills for Leaders
 - b. Language Patterns for Influence

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Explain the flow of information and communication in an organization.
- CO2** Evaluate the role of feedback and conflict resolution, recognizing their significance in effective leadership communication.
- CO3** Apply acquired knowledge to plan and organize business meetings by defining clear objectives, creating agendas, and selecting appropriate participants
- CO4** Create persuasive and compelling messages for a variety of leadership contexts

V. COs - POs - K Levels Matrix

CO->PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1	3	3	3					K2
CO 2	1	3	3	3		3			K5
CO3	3	3	3	3				3	K4
CO4	1	3	3	3					K6

VI. Course Materials

a. Mandatory

Chaturvedi, P. D. (2020). *Business Communication - Skills, concepts and Applications*. Noida U.P: Pearson India Education Services Pvt. Ltd.

b. Additional

1. Jain, N., & Mukherji, S. (2020). *Effective business communication*. Tata McGraw-Hill.
2. Rentz, K., & Lentz, P. (2021). *Business Communication: A Problem-Solving Approach*, 2nd Edition. McGraw-Hill

CORE COURSES

Semester III



Core Course

Course Code: 22PBA1101 | Title: Global Strategy | Credits: 3

I. Course Description:

The course exposes the students to the concepts and tools of strategy formulation and execution. The course explores the methods and tools used for scanning internal and external environment. The course takes a general management perspective and examines how functional strategies are integrated for building a sustained competitive advantage vis-a-vis competition at global level.

II. Course Objectives

1. To understand the strategic management process
2. To gain knowledge on the external environment of business
3. To appraise the resources and capabilities of the firm
4. To examine the strategies evolved at the functional and business level
5. To analyse the strategies for competitive advantages

III. Course Content

1. Strategic Management - Process

- a. Strategy – brief history; demystifying strategy
- b. Strategic Management Process
- c. Business Models
- d. Vision
- e. Mission
- f. Strategic Intent, Leadership and Corporate Sustainability

2. External Environment

- a. Understanding key external environments
- b. Tools for scanning
- c. Interpretation and use in strategy formulation

3. Internal Environment

- a. Appraising Organizations
- b. Internal environment dynamics – capability factors
- c. Techniques for Assessment
- d. Assessment Interpretation and using them in strategy formulation.

4. Building Strategies

- a. Functional level
- b. Business level

5. Corporate Strategies

- a. Corporate level
- b. Analyze competitive advantage
- c. Build sustainable strategy
- d. Multi-business models for a global and local environment.

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the strategic management process

CO2 Analyse the external environment using appropriate models for strategic formulation

CO3 Evaluate the internal environment of a firm

CO4 Examine the functional and business level strategies

CO5 Discuss sustainable competitive strategy for companies

V. COs - POs - K Levels Matrix

CO<->PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3		3	3			3	K2
CO 2		3	3	3	3			3	K4
CO3		3	3	3	3	3		3	K5
CO 4		3	3	3	3	3		3	K4
CO 5		3	3	3	3	3		3	K6

VI. Course Materials

c. Mandatory

Hill, C. W., Schilling, M. A., & Jones, G. R. (2017). *Strategic management: An integrated approach: Theory & cases*. Cengage Learning.

d. Additional

HBR's must reads on Strategy, Harvard Business Review, Boston.



Core Course

Course Code: 23PBA3119 | Title: Business Research | Credits: 3

I. Course Description

This course is designed to provide students with the necessary knowledge and skills to understand and undertake research in various business scenarios. Students will take up a manageable research study, design tools of data collection, analyse the data using software and submit the research report.

II. Course Objectives

1. To understand the basic concepts of research, the process of research and research designs.
2. To review the literature and formulate a problem statement
3. To prepare an instrument for collecting data.
4. To analyse the data using a software.
5. To prepare a quality research report

III. Course Content

1. Introduction to Business Research, Research Process and Design

- a. Introduction to Business Research
- b. Types of Research
- c. Nature, Scope and Significance of Research
- d. Scientific Method
- e. The Process of Research
- f. Research Applications in Business Decisions
- g. Features of a Good Research Study
- h. Types of Research Designs: Descriptive, Exploratory and Experimental

2. Review of Literature, Problem Formulation and Hypotheses Development

- a. Review of Literature: Sources and Importance
- b. Problem Identification and Formulation
- c. Concept Development
- d. Variables - Types
- e. Hypotheses – Types and Characteristics
- f. Measurement: Types of Scales – Nominal, Ordinal, Interval and Ratio
- g. Concepts of Reliability and Validity

3. Data Collection and Selection of Respondents

- a. Qualitative Vs. Quantitative Studies
- b. Types of Data: Primary Vs. Secondary Data
- c. Methods of Data Collection: Observation, Focus Group Discussion, Interviews
- d. Case Study
- e. Designing of a Questionnaire
- f. Sampling Concepts
- g. Probability Sampling Designs: Simple Random, Systematic, Stratified Random, Cluster
- h. Non-Probability Sampling Designs: Convenience, Judgmental, Snowball, Quota

4. Data Processing and Analysis - Using Software

- a. Data Editing and Coding
- b. Classification and Tabulation of Data
- c. Descriptive Vs. Inferential Analysis
- d. Hypotheses Testing: Steps
- e. Errors in Hypotheses testing
- f. Parametric Tests: 't' – Test, ANOVA
- g. Non-Parametric Tests: Chi-Square Test
- h. Linear Correlation and Regression
- i. Multiple Regression Model

5. Report Writing

- a. Types and Layout of Research Report
- b. Techniques of Writing a Research Report
- c. Precautions in Preparing the Research Report
- d. Guidelines for Effective Documentation
- e. Reference and Citation (APA Style)
- f. Ethical Considerations in Research
- g. Plagiarism and similarity report
- h. AI Tools for research report writing

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Understand the business research process and design
- CO2** Identify research gap and define the problem statement
- CO3** Develop the tool for data collection
- CO4** Evaluate the data and choose appropriate statistical tests
- CO5** Create a research report

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3			3	2	K2
CO 2		3		3	2		3	2	K3
CO3		3		3	2		3	2	K4
CO 4		3		3	2		3	2	K5
CO 5	2	3		3	2		3	2	K6

VI. Course Materials

a. Mandatory

Chawla, D. & Sondhi, N.(2018). Research Methodology, Concepts and Cases. (2ed.). New Delhi: Vikas Publishing House Pvt. Ltd.

b. Additional

1. Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). Business Research Methods. Cengage Learning
2. Cooper, Donald R. & Chindler, Pamela S. (2013). Business Research Methods. (12 ed.). New Delhi: Mc-Graw Hill Education

Finance

Electives

Semester III



Elective Course

Course Code: 22PBA3101 | Title: Security Analysis | Credits: 3

I. Course Description

This course aims at providing students with an understanding of economy-industry-company analysis and various inter linkages that influence the securities market. It enables them to establish the valuable linkage between modern theories of finance and the analytical techniques used by investors for valuing securities.

II. Course Objectives

1. To know the functioning of securities market.
2. To calculate trade-off between risk and return.
3. To discuss the valuation of Fixed income investments and Equity Shares
4. To articulate the factors of fundamentals analysis
5. To demonstrate the tools used in technical analysis

III. Course Contents

- 1. Investment Scenario and Securities Market**
 - a. Indian Investment scenario
 - b. Investment avenues
 - c. Markets and their Functions
 - d. Methods of Raising Capital
 - e. Stock Market Indices
- 2. Risk and Return**
 - a. Concept and Components of Risk
 - b. Systematic and Unsystematic Risk
 - c. Benefits of Diversification
 - d. Risk and Return of a Single Asset
 - e. Beta Estimation and Capital Asset Pricing Model
 - f. Efficient Market Hypothesis
- 3. Valuation of Bonds and Equity Shares**
 - a. Concepts of Value
 - b. Features of a Bond
 - c. Bonds values and yields
 - d. Bond values and interest rates
 - e. Valuation of equity shares
 - f. Equity capitalization rate
- 4. Fundamental Analysis**
 - a. Economic Analysis
 - b. Industry Analysis
 - c. Company Analysis

5. Technical Analysis

- a. Introduction
- b. Charts
- c. Reversal patterns
- d. Continuation patterns
- e. Relative Strength Analysis
- f. Moving Averages
- g. Dow theory

IV. Course Outcome

By the end of this course a student will be able to

CO1 Describe the functioning of securities market

CO2 Appraise trade-off between risk and return of equities

CO3 Discuss the valuation of Fixed income investments and Equity Shares

CO4 Articulate the factors of fundamentals analysis during the process of investment

CO5 Demonstrate the tools used in technical analysis for trading

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3			3	2			3	K2
CO 2		3		3	2		3		K3
CO3		3		3	2		3	3	K5
CO 4		3		3	2		3	3	K5
CO 5		3		3	2		3	3	K5

VI. Course Materials

a. Mandatory

Prasanna Chandra. (2017). *Investment analysis & portfolio management*. New Delhi: McGraw-Hill Professional.

b. Additional

1. Ranganatham M. & Madhumathi R. (2012). *Security analysis & portfolio management*. (2 ed.) New Delhi: Pearson.
2. Bhalla. V. K (2000). *Investment management*. (7 ed.). New Delhi: S. Chand & Company Ltd.



Elective Course

Course Code: 23PBA3102 | Title: Derivatives Management - I | Credits : 3

I. Course Description

This course has become increasingly popular and most commonly used in the world of finance. This course provides basic knowledge about various types of financial derivatives like forward, futures, options and swaps.

II. Course Objectives

1. To describe the types of financial derivatives
2. To understand the difference between forward and futures contracts, identifying their specifications and relationships with prices.
3. To identify the gain or loss of option contract to take investment decisions.
4. To evaluate the currency and interest rate swap.
5. To infer the key characteristics of different derivative contracts

III. Course Content

1. Introduction to Financial Derivatives

- a. History of Derivatives Market
- b. Types of derivatives
- c. Participants in Derivatives Market
- d. Advantages and Risks in Derivatives

2. Forward and Futures

- a. Specifications of Futures Contract
- b. Difference between Forwards and Futures
- c. Futures Price, Forward price and Spot Price
- d. Types of Futures

3. Options

- a. Terminology of Options
- b. Classification of Options
- c. Intrinsic Value and Time value of Options
- d. Exchange traded Options and OTC Options

4. Swaps

- a. Nature of Swap
- b. Swap Warehousing
- c. Swaptions
- d. Interest rate Swap and Currency Swap

5. Derivatives Contract

- a. Commodity Derivatives
- b. Equity Derivatives
- c. Interest rate derivatives
- d. Currency Derivatives

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the key features of various financial derivatives

CO2 Compare and contrast the gain and loss of futures and forward contract

CO3 Assess the gain or loss of option contract to take investment decisions.

CO4 Evaluate the currency and interest rate swap.

CO5 Analyse the characteristics of underlying assets of different derivative contracts

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		3		3			2		K4
CO3		3		3	2		2		K5
CO4		3		3	2		2	2	K5
CO5		3		3	2		2		K4

VI. Course Materials

a. Mandatory

Hull, J.C. (2017). Options, futures and other derivative securities. (10th ed.). Pearson.

b. Additional

1. Gupta, S.L. (2017). Financial derivatives - Theory, concepts and problems. (2nd ed.). Prentice Hall of India.
2. Kumar, S.S.S. (2010). Financial derivatives - Theory, concepts and practice. (4th ed). PHI Learning.
3. Stulz. (2011). Risk management and derivatives. (6th ed.). Cengage Learning.



Elective Course

Course Code: 23PBA3103 | Title: Banking and Financial Services | Credits: 3

I. Course Description

This course aims at giving an overall understanding of the banking, financial and insurance services. The course gives a basic insight about banking operations, banking financial statements, regulatory frameworks and acquaint the learners with various banking and insurance related services.

II. Course Objectives

1. To equip students with a comprehensive understanding of the banking industry, its functions, and the various services it offers
2. To provide students with a thorough understanding of financial statements specific to banks and the regulatory framework.
3. To equip students with the knowledge and skills necessary to navigate the digital transformation in the banking industry.
4. To provide students with a comprehensive understanding of the diverse range of financial products and services offered by financial institutions.
5. To provide students with a comprehensive understanding of the insurance industry, its products, and the role it plays in risk management

III. Course Content

- 1. Banking Services**
 - a. Origin and growth of Banking, Functions of Commercial Banking
 - b. Banker Customer Relationship
 - c. Retail Products and Channels
 - d. Bancassurance
 - e. Small and payment banks
- 2. Bank's Financials and Basel Framework**
 - a. Balance Sheet and Income Statement
 - b. CAMELS framework
 - c. Non-Performing Asset categories and Provisioning Norms
 - d. Basel Accords
 - e. Asset Liability Committees
- 3. Digital Banking Services**
 - a. Internet Banking
 - b. Mobile Banking
 - c. Central Bank Digital Currency
 - d. Fintech
- 4. Financial Services**
 - a. Wealth Management
 - b. Credit Rating
 - c. Venture Capital

5. Insurance Services

- a. Life Insurance Products
- b. General Insurance products
- c. Reinsurance

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Summarize the function, importance and services provided by banks

CO2 Interpret the regulatory framework governing the banking industry

CO3 Analyse the impact of technological advancements on banking services

CO4 Recommend appropriate financial solutions based on client needs.

CO5 Evaluate the financial implications of insurance decisions on individuals

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1			3					K5
CO 2		3		3					K5
CO3		3		3				2	K5
CO 4		3		3	3			2	K5
CO 5		3		3				2	K5

VI. Course Materials

a. Mandatory

Gulati, N.C. (2010). Principles of banking management. Excel Books Pvt Ltd.

Gurusamy, S.(2009). Merchant banking and financial services. (3rd ed.). Tata McGraw – Hill.

b. Additional

Sankaran, S. (2011). NCFM- Banking sector module. National Stock Exchange of India Ltd. Khan,

M.Y. (2017). Financial services. (8 ed.). Tata McGraw – Hill.



Elective Course

Course Code: 23PBA3104 | Title: Accounting Analytics | Credits: 3

I. Course Description

This course familiarizes the students to understand the ratios and accounting based valuation. The course focuses on comprehensive learning in earnings management, on analytic techniques for decision making involving Discretionary Accruals Models and Prediction Models. It enables the students to analyze linking Non-Financial Metrics to Financial Performance.

II. Course Objectives

1. To understand the basic concepts related to accounting ratios.
2. To enhance the understanding in Earnings Management.
3. To apply discretionary accruals models to estimate discretionary accruals.
4. To be competent on Fraud Analytics, Big Data and Prediction Models.
5. To analyze and evaluate linking Non-Financial Metrics to the performance of companies

III. Course Content

1. Ratios and Forecasting

- a. DuPont analysis
- b. Profitability, Turnover ratios & Liquidity ratios
- c. Comparative & Common Size Financial Statements
- d. Trend analysis - Forecasting Financial Statements

2. Earnings Management

- a. Overview of Earnings management
- b. Revenue recognition: Before and after cash collection
- c. Expense recognition: Capitalizing vs. Expensing
- d. Expense recognition: Reserve accounts and write-offs

3. Big Data and Prediction Models

- a. Fraudulent Financial Statements
- b. Fraud Prediction Models
- c. Beneish M-Score
- d. Benford's Law -Primary Benford Law test
- e. Financial Statements detecting discrepancies from Benford's Law
- f. Asset quality index (AQI), Sales growth index (SGI), Depreciation index (DEPI)

4. Linking Non-Financial Metrics to Financial Performance

- a. Linking Nonfinancial Performance to Financial Results
- b. Key Component of Managerial Decision-Making
- c. Selecting performance measures for evaluating managerial and business performance
- d. Informal data analyses
- e. Linking Nonfinancial and Financial Results in Business Models

5. Linking Non-Financial Metrics to Financial Performance

- a. Linking Nonfinancial Performance to Financial Results
- b. Key Component of Managerial Decision-Making
- c. Selecting performance measures for evaluating managerial and business performance
- d. Informal data analyses
- e. Linking Nonfinancial and Financial Results in Business Models

IV. Course Outcome

By the end of this course a student will be able to

CO1 Analyze trends and patterns in accounting ratios over time

CO2 Apply knowledge of earnings management techniques

CO3 Analyze financial data to assess the quality of earnings using discretionary accruals models.

CO4 Assess the impact of big data analytics and prediction models on business processes, decision-making, and organizational performance

CO5 Evaluate the effectiveness of non-financial metrics in predicting and explaining variations in financial performance metrics

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K4
CO 2		3		3				3	K3
CO3		3		3				3	K4
CO 4		3		3				3	K5
CO 5		3		3				3	K5

VI. Course Materials

a. Mandatory

Godwin, N., Alderman, W., & Sanyal, D. (2016). *Financial ACCT: A South-Asian Perspective*. (2nd ed.). Cengage.

b. Additional

Materials will be provided for the course by the course coordinator



Elective Course

Course Code :23PBA3105 | Title: Financial Modelling using Spreadsheet – I | Credit: 1

I. Course Description

This course aims at introducing analysis of financial statements by using spreadsheet and build forecasting models to predict profitability and the financial status of the organization.

II. Course objectives

1. To analyse financial statements using spreadsheets.
2. To forecast the financial statements with the assistance of spreadsheets.
3. To prepare budgets using spreadsheets.

III. Course Content

1. Financial statement analysis

- a. Comparative Financial Statement analysis
- b. Common size Financial Statement analysis
- c. Trend Analysis
- d. Ratio Analysis & Dupont Chart

2. Financial Forecasting

- a. Forecasting the Income Statement
- b. Forecasting the Balance Sheet
- c. Regression analysis

3. Budget, Break even and Leverage Analysis

- a. Cash Budget Scenario Analysis
- b. Break-even Analysis
- c. Degree of operating leverage, Degree of Financial leverage, and Degree of Combined leverage

IV. Course Outcome

By the end of this course a student will be able to:

- CO1** Analyse comparative and common size statement using spreadsheet.
- CO2** Estimate financial statements using trend analysis in spreadsheet.
- CO3** Estimate various budgets using spreadsheet

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3	3				3		K4
CO 2		3	3				3		K5
CO3		3	3				3		K5

VI. Course Materials

a. Mandatory

Mayes, T.R. (2016). *Financial analysis with microsoft excel*. Cengage Learning.

b. Additional

Winston, W.L. (2017). *Microsoft excel 2016 - Data analysis and business modeling*. Microsoft Press.

Proctor, S. K. (2010). *Building financial models with microsoft excel: A guide for business professionals*. Wiley.



Elective Course

Course Code: 22PBA3106 | Title: Mutual Funds | Credit: 1

I. Course Description

This course provides in-depth knowledge of the mutual fund industry and its operations. It is intended to familiarize with the basic concepts related to mutual funds, how they work and its legal structure. This course describes the role of distributors, Evaluation of mutual fund schemes and the recent trends in the mutual funds industry.

II. Course Outcomes

1. To understand the structure of mutual fund industry
2. To analyze the performance of mutual fund schemes
3. Evaluate the risk and rewards of mutual fund schemes.

III. Course Content

1. Mutual Fund – Introduction, Regulatory Framework and Distribution Channel

- a. Mutual Fund – Classification, Structure
- b. Growth of the Mutual Fund industry in India
- a. Organization structure and Functions of Asset Management Company
- b. Role of Mutual Fund regulators in India
- c. Due diligence process by AMCs for Distributors
- d. Mutual Fund distributors - Modes of Distribution, Revenue
- e. Redress mechanism of Investor Grievances

2. Net Asset Value and Taxation of Mutual Fund Scheme

- a. Net Assets of Mutual Fund scheme and Net Asset Value
- b. Types of Loads and its impact on NAV
- c. Applicability of Taxes in respect of Mutual Funds
- d. Applicability of GST
- e. Tax benefits and Tax Deducted at Source

3. Selection and Evaluation of Mutual Fund Scheme

- a. Benchmarks for Equity, Debt and other schemes
- b. Factors affecting Mutual Fund performance
- c. Measuring Risk and Return of Mutual Fund Scheme
- d. Selection of Mutual Fund Scheme
- e. Do's and Don'ts while selecting Mutual Fund Schemes

IV. Course Outcome

By the end of this course a student will be able to

CO1 Evaluate the effectiveness of different distribution channels in reaching and serving target investor segments

CO2 Analyze the impact of expense ratios, management fees, and other costs on mutual fund NAV and investor returns over time.

CO3 Analyze the performance of mutual fund schemes over different time periods, comparing risk-adjusted returns, volatility, and consistency of performance.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K5
CO 2		3		3					K4
CO3		3		3					K4

VI. Course Materials

a. Mandatory

Fredman & Wiles. (2004). *How mutual funds work*. (2nd ed.). Prentice Hall.

b. Additional

1. Sharpe, W.F., Alexander, G.J., & Bailey, J.V. (2006). *Investments*. (6th ed.). Prentice Hall.
2. Fischer, D.E., Jordan, R.J., & Pradhan, A.K. (2018). *Security analysis & portfolio management*. Pearson.

Marketing

Electives

Semester III



Elective Course

Course Code: 23PBA3201 | Title: Product and Brand Management | Credits: 3

I. Course Description

This course exposes the students to the process involved in new product development – commercially. The key steps involved in new product development and the tools used for a go-to-market strategy are discussed in full length. The course also gives a basic framework on Brand and its Management- from product to a brand and its leveraging capacities.

II. Course Objectives

1. To understand the various stages in new product development
2. To learn the challenges faced from planning to execution of marketing communication
3. To know the different mediums of communication
4. To understand the importance and different stages of brand management
5. To examine the strategies for managing the brands

III. Course Content

1. New Product Development

- a. Introduction
- b. New product
- c. Product discovery
- d. Different stages of new product development

2. Marketing Communication for New products

- a. Integrated Marketing Communication
- b. Big Idea – Development through creative techniques
- c. Understanding consumer psychology of buying
- d. Strategy development using design thinking

3. Communication in different mediums

- a. Print – Layouts and other key principles for communication through print
- b. TV – Channels and relevant process
- c. Other mass media methods of communication
- d. Digital Marketing
- e. Relevant metrics and financials for decision making
- f. Below The Line promotion

4. Brand Management

- a. Product to Brand
- b. Stages and architecture for different sectors
- c. Brand Audit

5. Brand Strategy

- a. Brand Message
- b. Brand equity
- c. Brand loyalty

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Understand the various stages involved in new product development, including essential elements and commercial considerations
- CO2 Develop the big idea using design thinking principles
- CO3 Analyse the use of mass media methods of communication for promotion
- CO4 Understand the fundamentals of branding and its management
- CO5 Apply the strategies for managing the brands

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				2	K2
CO 2		3	3	3			3	2	K6
CO3		3		3	3		3	2	K4
CO4		3	3	3	3			2	K2
CO5		3		3				2	K3

VI. Course Materials

a. Mandatory

1. D'Souza, A. & Shah, K. (2008). Advertising and promotion. (5th ed.). Tata McGraw-Hill.
2. Keller, K.L. (2012). Strategic brand management: Building, measuring and managing brand equity. (4th ed.). Pearson Education.

b. Additional

Marc, A. & Annachino, P.E. (2006). New product development: From initial idea to product management. Elsevier.

www.afaqs.com

www.mediaant.com

www.exchange4media.com



Elective Course

Course Code: 23PBA3202 | Title: Services Marketing | Credits: 3

I. Course Description

This course helps to understand the nature and scope of services marketing. It deals with the unique challenges in developing and managing quality service. The tools and strategies to address these challenges are dealt.

II. Course Objectives

1. To understand the unique challenges in marketing of services
2. To understand the dimensions of service quality and the various gaps that can occur during service delivery
3. To learn service standards, service design and distribution of services
4. To analyse employees' role and customers' role in service delivery
5. To develop strategies to match demand and supply of services and pricing

III. Course Content

1. Foundations for Services Marketing

- a. Service Sector and Indian Economy
- b. Meaning and Characteristics of Services
- c. Classification of Services and Service Adjuncts
- d. Service and Technology
- e. Services Marketing Mix

2. Focus on the Customer

- a. GAPS Model of Service Quality and Dimensions
- b. Consumer Expectations
- c. Customer Perceptions of Service
- d. Consumer Research in Services
- e. Service Encounters

3. Service Standards, Design and Distribution

- a. Service Standards
- b. Service Design
- c. Physical Evidence and the Servicescape
- d. Distribution
- e. Role of Intermediaries and Electronic Channels

4. Delivering and Performing Service

- a. Role of Employees in Service Delivery
- b. Role of Customers in Service Delivery
- c. Self Service Technologies
- d. Strategies for Enhancing Customer Participation

5. Managing Service Promises

- a. Managing Demand and Supply
- b. Pricing Strategies: Yield Management
- c. Customer Retention
- d. Complaints Handling and Service Recovery

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the unique characteristics of services, challenges and opportunities for marketing services

CO2 Apply customer-centric models to enhance service quality dimensions, customer expectations, and perceptions.

CO3 Analyze the service standards, considering physical evidence, servicescape and distribution strategies.

CO4 Assess the role of employees and customers in service delivery

CO5 Develop effective strategies for demand and supply management

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3							K2
CO 2		3	3	3			3	3	K3
CO3		3		3	3			3	K4
CO4	3	3	3	3			3	3	K5
CO5		3		3				3	K6

VI. Course Materials

a. Mandatory

Zeithaml, V.A., Bitner, M.J., Gremler, D.D. (2017). Services marketing – Integrating customer focus across the firm. (7 ed.). New Delhi, India: McGraw Hill Education (India) Pvt. Ltd.

b. Additional

Bateson E.G. J., & Hoffman K. D. (2011). Services Marketing (4 ed.). New Delhi, India: Cengage Learning India Private Limited.



Elective Course

Course Code: 23PBA3203 | Title: Digital Marketing | Credits: 3

I. Course Description

The course is designed to make the students to gain knowledge and skills in digital marketing. It covers search engine optimization, website analytics, search and display ads, email marketing, social media, and social listening.

II. Course Objectives

1. To understand the online environment and devise strategies for establishing a digital presence
2. To apply Search Engine Optimization techniques for both on-site and off-site
3. To know the process of content and email marketing
4. To learn Social Media Marketing strategies and engage in social networks
5. To assess the various formats of online advertising

III. Course Content

1. Online Environment

- a. Getting started online
- b. Developing online presence
- c. B2C online presence
- d. B2B online presence

2. Search Engine Optimization

- a. Search engine
- b. Keyword selection
- c. On-site optimization
- d. Off-site optimization
- e. Paid search

3. Content and Email Marketing

- a. Content marketing
- b. Content types
- c. Data – Email Marketing Process
- d. Design and Content
- e. Delivery and Discovery

4. Social Media Marketing

- a. Social networks and online communities
- b. Blogging
- c. Viral marketing

5. Online Advertising

- a. Online ad formats
- b. Search engine advertising
- c. Network advertising
- d. Affiliate programmes
- e. Landing pages

IV. Course Outcomes

CO1 Understand the online environment and digital marketing principles

CO2 Apply effective SEO strategies for on-site and off-site optimization

CO3 Develop content marketing and email marketing campaigns

CO4 Apply strategies for effective Social Media Marketing

CO5 Evaluate online advertising formats and channels for effective digital marketing campaigns

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K Levels
CO 1		2		3					K2
CO 2		3		3					K3
CO3	2	3		3					K6
CO 4		3		3			3	2	K3
CO 5		3		3			3	2	K5

VI. Course Materials

a. Mandatory

Ryan, D. (2017). Understanding digital marketing: Marketing strategies for engaging the digital generation. (4th ed.). Kogan Page Limited.

b. Additional

1. Stokes, R. (2013). The essential guide to marketing in a digital world. (5th ed.). Quirke Marketing.
2. Charlesworth, A. (2014). Digital marketing: A practical approach. (2nd ed.). Routledge.
3. Bhatia, P.S. (2019). Fundamentals of digital marketing. (2nd ed.). Pearson India Education Services Pvt. Ltd.



Elective Course

Course Code: 22PBA3204 | Title: Business to Business Marketing | Credits: 3

I. Course Description

This course gives a strong knowledge base to the students' in the area of Business to Business (B2B) marketing. Students understand the elements of marketing function from a B2B perspective. It covers the entire gamut of B2B function; starting from understanding industrial buyers to channel management to customer relationship management.

II. Course Objectives

1. To learn the fundamental concepts and principles of B2B marketing
2. To know the segmentation strategies and market entry models
3. To be proficient in applying pricing strategies and negotiations tailored for B2B transactions
4. To develop the ability to design and implement integrated marketing communication strategies for B2B products and services
5. To explore the role of relationship marketing and customer relationship management

III. Course Content

1. Introduction to B2B marketing and understanding consumer environment

- a. Fundamentals of B2B marketing
- b. Understanding the customer and the environment

2. Organizing the marketing function

- a. Segmenting and Strategy for new industrial products. Models
- b. Innovations for business markets

3. Pricing Strategy and Channel Partnerships

- a. Types and Rationale behind each pricing strategy
- b. Designing and developing a pricing strategy

4. Integrated Marketing Communication for B2B

- a. Communication for B2B markets
- b. Innovative practices
- c. Use of digital media

5. Customer care for B2B marketing

- a. Relationship marketing practices for B2B
- b. Personal Selling
- c. Sales Productivity

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the fundamental concepts and characteristics of B2B marketing

CO2 Apply segmentation strategies and market entry models to identify and target specific business markets

CO3 Analyze pricing strategies for B2B transactions

CO4 Develop integrated marketing communication strategies tailored for B2B products and services

CO5 Evaluate the role of relationship marketing and customer relationship management in B2B contexts

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	K Levels
CO1		3		3				2	K2
CO2		3		3				2	K3
CO3		3	3	3				2	K4
CO4	2	3		3			3	2	K6
CO5		3		3	3	3		2	K5

VI. Course Materials

a. Mandatory

Hutt, D.M., Sharma, D., & Speh, W. T. (2017). *B2B marketing: A South-Asian perspective*. (11th ed.). Cengage Learning.

b. Additional

Cases and articles related to B2B will be given by the Professor at the start of the course.



Elective Course

Course Code: 23PBA3205 | Title: Marketing of Financial Products and Services | Credit: 1

I. Course Description

This course provides a comprehensive understanding of the principles, strategies, and practices involved in marketing financial products and services. It explores the unique challenges and opportunities within the financial sector.

II. Course Objectives

1. To understand various banking products and services
2. To learn the insurance products based on individual needs and risk exposure
3. To know the process of investing in mutual funds

III. Course Content

1. Banking Products and Services

- a. Retail Banking
- b. Commercial Banking
- c. Investment Banking

2. Insurance Products

- a. Life Insurance
- b. General Insurance

3. Mutual funds

- a. Mutual Fund scheme
- b. Net Asset Value
- c. Tax benefits and Tax Deducted at Source

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Evaluate the suitability of different banking products and services based on individual financial goals, risk tolerance, and preferences
- CO2 Analyse insurance products and policy documents to understand the scope and extent of coverage provided
- CO3 Evaluate the suitability of mutual funds as investment options

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3	3	3	2			3	K5
CO 2		3	3	3	2			3	K4
CO3		3	3	3	2		2	3	K5

VI. Course Materials

a. Mandatory

Ennew, C., Waite, N. & Waite, R. (2017). Financial services marketing: An international guide to principles and practice. (3rd ed.). John Wiley and Sons.

b. Additional

Cases and articles will be given by the Professor at the start of the course.



Elective Course

Course Code : 23PBA3206 | Title: Influencer Marketing | Credit: 1

I. Course Description

The course will enable the students to understand and examine the influence of influencers in digital medium. Students will be able to create marketing plans for their own and also for others with the objective to drive sales.

II. Course Objectives

1. To understand the fundamentals of influencer marketing
2. To know the tools of influencer marketing
3. To learn influencer marketing campaigns

III. Course Content

1. Fundamentals

- a. Introduction to Influencer Marketing
- b. The 3 Types of Influencers
- c. The six principles of Influence
- d. Types of Impact
- e. The Four Ms of Influence Marketing

2. Influencer Marketing Tools

- a. Content
- b. Creativity
- c. Influencers and PR
- d. Power of external link building
- e. Influencer marketing and SEO
- f. Influencer Marketing Tools

3. Building Influencer Marketing Campaigns

- a. Decide Goals
- b. Identify the right influencer through segmentation, targeting, and positioning.
- c. Build your Blueprint
- d. Prepare the pitches
- e. Four purposes of Influence
- f. Implementations

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the fundamentals of influencer marketing

CO2 Apply the tools of influencer marketing

CO3 Develop a blueprint for influencer marketing campaign

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3					K2
CO 2		3		3	2			2	K3
CO3		3		3	2		1	2	K6

VI. Course Materials

a. Mandatory

Sammis, K., Lincoln, C., Pomponi, S., Ng, J. (2015). Influencer Marketing For Dummies. Germany: Wiley.

b. Additional

Cases and articles will be given by the Professor at the start of the course.

HR

Electives

Semester III



Elective Course

Course Code: 23PBA3301 | Title: Talent Acquisition | Credits: 3

I. Course Description

The course focuses on the importance of talent acquisition in driving organizational success. It describes the key steps and components of the talent acquisition process.

II. Course Objectives

1. To know the different approaches and philosophies of talent acquisition
2. To understand the recruitment strategies and processes
3. To recognise the process and procedures of selection
4. To learn to conduct interviews
5. To comprehend onboarding programs for new hires into the organization

III. Course Content

1. Changing Business Context in Recruitment and Selection

- a. Philosophy of Talent Acquisition
- b. Job Analysis, Job requirement
- c. Competency-based job analysis methods
- d. Reward based job analysis methods.

2. Recruitment

- a. Planning
- b. Strategy development
- c. Searching, and applicant reactions
- d. E-recruitment process

3. Selection

- a. Process
- b. Validity of selection tools
- c. Selection tests

4. Interviews

- a. Types
- b. Planning
- c. Conducting interview
- d. Online interviews

5. Placement and Induction

- a. Objectives, needs and roles
- b. Online Induction
- c. Online training modules

IV. Course Outcomes

The students will be able to learn

- CO1 Understand the philosophy of talent acquisition.
- CO2 Develop a recruitment strategy that is aligned with organisational objectives.
- CO3 Analyse the various selection tools
- CO4. Design the process and techniques in structuring the interview
- CO5. Evaluate the placement and induction strategies

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3	3	3					K2
CO 2	3	3	3	3					K6
CO3		3	3	3		3			K4
CO4		3	3	3	2				K6
CO5	3	3	3	3	2			3	K5

VI. Course Materials

a. Textbook

Human Resource Selection: Gatewood, Field and Barrick, Cengage Learning
Sahay, P. (2015). A strategic approach to talent acquisition. Create Space Independent Publishing platform.

b. Reference

1. Ariss, A.A. (2014). Global talent management: Challenges, strategies, and opportunities. (1sted.). Springer Publications.
2. Arthur, D. (2011). Recruiting, interviewing, selecting and orienting new employees (4th ed.). PHI Learning Private Limited



Elective Course

Course Code: 23PBA3302 | Title: Learning and Development | Credits: 3

I. Course Description

This course imparts the skills necessary to design, develop and implement a training program.

II. Course Objectives

1. To understand the fundamental training and learning principles, exploring their theoretical foundations and practical applications.
2. To know the concept of training objectives
3. To understand the insights about developing the training program
4. To learn different training methods, such as lectures, discussions, and hands-on activities, based on learning objectives.
5. To understand the training evaluation and ROI calculation.

III. Course Content

1. Training and Learning Principles

- a. Needs assessment and needs analysis
- b. Determining whether training is the best solution
- c. Andragogy and adult learning theory
- d. Characteristics of adult learners
- e. Learning outcomes, domains
- f. Learning styles, cycle and process
- g. Learning theories

2. Training Objectives

- a. Setting training goals and objectives
- b. Bloom's taxonomy and the three learning domains
- c. Writing SMART objectives
- d. Establishing the training budget

3. Developing the Training Program

- a. Program design
- b. Content derivation
- c. Content sequencing
- d. Developing lesson plan

4. Training Methods, Experiential Learning and Technology in Training

- a. Training methods
- b. Determining the best method of training
- c. Using e-learning
- d. Levels of technology-based training
- e. Selecting the appropriate training design
- f. Virtual Facilitation skills

g. Implementing Training and Presentation Skills

5. Evaluation and Return on Investment

- a. Training evaluation
- b. Benefit-cost ratio
- c. Link training to organization success

IV. Course Outcomes

By the end of this course a student will be able to

CO1- Assess the relevance of different learning theories in various educational contexts.

CO2- Develop training objectives and ensure that training objectives are achievable and learner-centric.

CO3- Apply specific skills and knowledge to design and implement effective training programs.

CO4- Analyse the training methods to suit the specific needs and learning styles of participants.

CO5- Develop reports and presentations to communicate training evaluation results and ROI to organizational leaders.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1		3	3			3		K5
CO 2			2	3					K6
CO3	1		3	3			3		K3
CO 4				3			3	2	K4
CO 5		2	3	3			3		K6

VI. Course Materials

a. Mandatory

Noe, R. (2017). Employee training and development. (7th ed.). McGraw-Hill.

b. Additional

1. Bhattacharya, D.K. (2015). Training and Development. Sage Publication.
2. Planning Tool - Retrieved from <https://www.planware.org/strategicplanner.htm>
3. Evaluation Model from Businessballs.com:www.businessballs.com/kirkpatricklearningevaluationmodel.html
4. Presentation skills from www.presentationkills.info/presentationkills.htm
5. Transfer of learning from www.nwlink.com/~donclark/hrd/learning/transfer.html
6. Atherton, J. (2005). Learning and Teaching: Experiential Learning. Retrieved September 10, 2008, from www.learningandteaching.info/learning/experience.htm
7. Bloom’s Taxonomy (n.d). www.nwlink.com/~donclark/hrd/bloom.html
8. Kolb Learning (n.d). www.businessballs.com/kolblearningstyles.htm
9. Learning Style test (n.d.)from www.coe.iup.edu/rjl/instruction/cm150/selfinterpretation/kolb.htm



Elective Course

Course Code: 23PBA3303 | Title: Labour Codes - I | Credits: 3

I. Course Description

This course provides a strong framework along with knowledge and understanding of the new labour legislation in India. The Code on Industrial Relations and Occupational Safety is discussed as part of this course. The students understand the application of laws from a managerial perspective.

II. Course Objectives

1. To understand the role played by trade unions and associations.
2. To familiarize themselves with procedures like collective bargaining and settlement of disputes.
3. To apply the concepts of employer and employee safety in the workplace.
4. To analyse the key differences and changes between the old and new provisions on workplace safety.
5. To remember the procedures relating to health and working conditions

III. Course Content

1. Introduction to Labour Codes and the Constitution

- a. Basics of Indian Constitution
- b. Fundamental Rights and Duties
- c. Evolution of the new Labour Codes
- d. Need for the new Codes on Labour
- e. The Changing Nature of Employment

2. The Code on Industrial Relations

- a. Various actors in Industrial Relations
- b. Role of Trade unions
- c. Negotiating Union and Council
- d. Standing Orders
- e. Bipartite forums- Works Committee, Grievance Redressal Committee

3. Settling and Handling Industrial Disputes

- a. Mechanism for Resolution of Disputes
- b. Tribunals and Awards
- c. Strikes and Lockouts
- d. Layoffs and Retrenchments
- e. Disputes to Arbitration
- f. Bipartite and Tripartite Agreements

4. The Code on Occupational Safety

- a. Definitions in the Code
- b. Duties of Employers and Employees
- c. Occupational Safety and Health

5. Health and Working Conditions

- a. Health, Safety and Working Conditions
- b. Welfare Provisions
- c. Annual Leave with Wages
- d. Maintenance of Records and Registers
- e. Special Provisions in the Code for Contract Labour, Inter-state Migrant Workers, Factory Workers etc.
- f. Offences and Penalties

IV. Course Outcomes

By the end of this course, a student will be able to

CO1- Understand the Labour code and constitutions

CO2- Analyse the Industrial Relations Practices

CO3- Examine the different ways of handling disputes

CO4- Analyse the key differences and changes between the old and new provisions on occupational safety.

CO5- Examine the procedures relating to health and working conditions

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3		3	3				K2
CO 2		3	3	3	2	3			K4
CO3		3	3	3	2	3			K4
CO 4		3		3	1				K4
CO 5		3		3	3				K4

VI. Course Materials

a. Mandatory

1. The Code on Industrial Relations,2020.
2. The Code on Occupational Safety, health and working conditions, 2020.

b. Additional

1. Sinha, P.R.N., & Sinha, I.B., & Shekhar, S.P. (2021). *Industrial relation, trade unions and Labour Legislation*. (3rd ed.). Pearson



Elective Course

Course Code: 23PBA3304 | Title: Learning Organizations | Credits: 3

I. Course Description

This course covers theoretical and practical issues in creating and sustaining a learning organization. It also helps the learner to learn from the experiences and best practices of learning organisations.

II. Course Objectives

1. To understand theory and practice of learning
2. To recall the various skills and competencies towards formal organizational learning
3. To know the different methods of informal learning
4. To categorise the learning styles
5. To assess the knowledge management pedagogy

III. Course Content

1. Theory and practice of learning

- a. Reflecting on and analysing learning approaches;
- b. Learning as change; change as learning
- c. Learning as research; research as learning
- d. Human Development (change and learning as life stages)
- e. Learning to learn

2. Organizational learning- Formal

- a. Skills and competences
- b. Skills and abilities need in the future
- c. Education and learning; lifelong learning; learning for employability
- d. Learning 'outcomes' at work; competency approaches to learning

3. Organizational learning – Informal

- a. Informal versus formal
- b. Social learning (Socialisation, enculturation etc)
- c. Development (professional and personal).
- d. Work-based learning
- e. Situated learning; communities of practice; narrative and storytelling.

4. Learning organizations' – organizations' as learners

- a. Defining and creating learning organisations
- b. Action learning as organisational learning
- c. Transforming learning philosophies into practical reality

- d. Management practice as learning practice
- e. Unlearning and Relearning

5. Managing learning and knowledge

- a. Reflective practice
- b. Action Research
- c. Policies, strategies and practice in learning organisations
- d. Internship; Apprenticeship
- e. Tactical management
- f. Designing programs for effective learning
- g. Integrating formal and informal learning at organisational level

IV. Course Outcomes

By the end of this course a student will be able to

1. Understand the basic theories and practices of learning
2. Assess the formal style of organisational learning
3. Appraise the informal style of organisational learning
4. Analyse the processes and skills to be implemented in a learning organisation
5. Develop strategies to manage learning and knowledge in an organisation

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3	3	3				3	K2
CO 2		3	3	3				3	K5
CO3		3	3	3	2			3	K5
CO 4		3	3	3	2			3	K4
CO 5		3	3	3	2		3	3	K6

V. Course Materials

a. Mandatory

Allen, B. (1997). *Developing a learning organisation*. Pearson.

b. Additional

1. Lassey, P. (1998). *Developing a learning organization*. Kogan.
2. Senge, P. (1994). *The fifth discipline fieldbook: Strategies for building a learning organisation*. Nicholas Brealey Publishing.



Elective Course

Course Code:23PBA3305 | Title: People Analytics | Credits : 1

I. Course Description

This course describes how HR effectiveness is measured in organizations. It introduces the central concepts of people orientated analytics through hands-on exercises, builds skills and competencies around the management, analysis and representation of data. The subject explores how analytics helps managers to address both tactical and strategic level human capital issues.

II. Course Objectives

1. To understand the fundamental principles of people-oriented analytics and its application in HR management.
2. To identify key metrics and indicators for measuring HR effectiveness within an organization.
3. To use various tools and techniques to analyse HR data

III. Course Content

1. HR Metrics

- a. Types
- b. Application
- c. Payroll
- d. Performance appraisal

2. Descriptive Analytics

- a. Key excel functions
- b. HR Dashboards
- c. HR Data Visualization
- d. HR Data Mapping
- e. Use of Big Data in Data Visualization

3. Advanced HR Analytics

- a. Paired T test
- b. Factor Analysis
- c. HR modelling
- d. Sensitivity Analysis
- e. Cluster Analysis

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Develop metrics for performance appraisal

CO2 Examine different methods of visualizing HR data

CO3 Analyse HR data using various models, tools and techniques

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3		3					K6
CO 2		3		3		3			K5
CO3		3	3	3		3			K4

VI. Course Materials

a. Mandatory

Bhattacharyya, D.K. (2017). *HR analytics: Understanding theories and applications*. Sage Publications.

b. Additional

1. Banerjee,P., Pandey.J., & Gupta.M. (2017). *Practical application of HR analytics*. Sage Publications.
2. Khan,N., & Millner,D. (2020). *Introduction to people analytics: A practical guide to data- driven HR*. Kogan Publications.
3. Walsh, M.J. (2021). *HR analytics essentials*. Vibrant Publishers.



Elective Course

Course Code: 23PBA3306 | Title: Team Management | Credits: 1

I. Course Description

This course provides insight for successful team development process that facilitates the development of a new team or the revitalization of an existing team. Students will develop the skills for team communication strategies, tools, and techniques to assure positive outcomes.

II. Course objectives

1. To gain a comprehensive understanding of the fundamental elements required for effective teamwork.
2. To examine the trigger points of stress in a team, design plans for expanding team skills, understand team culture and construct trust development strategies
3. To be capable of conducting virtual team meetings, identify challenges in virtual leadership and examine the nature of multicultural and cross functional teams

III. Course Content

1. Building a Team

- a. Team Requirement
- b. Team Work and Synergy
- c. Team Building Phases and Models
- d. Team Roles and Resources
- e. Goal Setting Strategies

2. Team Development & Culture

- a. Stages
- b. Team Stress Management
- c. Trust Development
- d. Expanding Team Skills
- e. Team Culture
- f. Leaders and Followers

3. Trends in Team Management

- a. Virtual Team Management
- b. Virtual Leadership Challenges
- c. Cross Functional Teams
- d. Multicultural Teams
- e. Team Meetings

IV. Course outcomes

By the end of this course a student will be able to

CO1 Explain the essential components and characteristics necessary for building and maintaining a successful team

CO2 Discuss the strategies to develop a team

CO3 Elaborate the team management techniques

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	2	3	2					K2
CO 2		3	3	2		3			K3
CO3	3	2	3	2				3	K5

VI. Course Materials

a. Mandatory

Bhargava, N.S. & Bhargava, G. (2012). *Team building and leadership*. Himalaya Publishing House.

b. Additional

1. Mears, P. & Voehl, F. (1994). *Team building: A structured learning approach*. St. Lucie Press.
2. Robbins, S.P. & Judge, T. A. (2017). *Organizational behaviour*. Pearson.

IT & Analytics

Electives

Semester III



Elective Course

Course Code: 23PBA3401 | Title: Machine Learning Using Python | Credits:3

I. Course Description

This course introduces the students to Machine learning techniques with analytical experiments. This course helps the students to learn core set of effective machine learning methods and concepts and apply them to solve business problems.

II. Course Objectives

1. To understand the concepts of machine learning.
2. To demonstrate the supervised techniques
3. To study the different forecasting techniques in Machine Learning
4. To explore the unsupervised learning techniques
5. To apply dimension reduction techniques in Machine Learning

III. Course Content

1. **Machine Learning**
 - a. Basics of Data Science
 - b. Supervised, unsupervised and reinforcement approach
 - c. Business Analytics, Machine Learning, Deep Learning
2. **Supervised Learning**
 - a. Bayesian Classification
 - b. Decision Tree
 - c. Random Forest
 - d. Support Vector Machine
 - e. K Nearest Neighbour
3. **Forecasting**
 - a. Linear, Logistic, Multiple regression
 - b. Moving average, Exponential smoothing
 - c. Auto Regressive Moving Average
 - d. Auto Regressive Integrated Moving Average
4. **Unsupervised Learning**
 - a. Hierarchical
 - b. Partitioning
 - c. K-Mean
5. **Dimension Reduction**
 - a. Principal Component Analysis
 - b. Linear Discriminant Analysis

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Understand the concepts of machine learning
- CO2** Apply the supervised techniques to solve the problem
- CO3** Examine the different forecasting techniques in Machine Learning
- CO4** Evaluate the data using unsupervised learning techniques
- CO5** Analyse the data using dimension reduction techniques to solve the problem

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2			3			2	1	K2
CO 2	2			3		2	2		K3
CO3	2			3		2	2	2	K4
CO 4	2			3			2		K5
CO 5	2			3			2		K4

V. Course Materials

a. Mandatory

Pradhan, M. & Kumar, U.D. (2018). *Machine learning using python*. Wiley.

b. Additional

1. Lant, B. (2015). *Machine learning with R*. (2nd ed.). Packt Publishing Ltd.
2. Sebastian, R. & Vahid, M. (2017). *Python machine learning*. (2nd ed.). Packt Publishing Ltd.



Elective Course

Course Code: 23PBA3402 | Title : Data Mining and Data Warehousing | Credits:3

I. Course Description

This course introduces the students to the field of data mining and data warehousing. It helps the students to learn different techniques in data mining and types of web mining systems

II. Course Objectives

1. To study the concepts of data mining
2. To learn the methods for data Pre-processing
3. To analyze the various association mining techniques and algorithms to solve business problem
4. To examine the various types of web mining systems in web data
5. To explore the data warehousing and data cube architectures and their use in business

III. Course Content

1. Data Mining

- a. Knowledge Discovery Process
- b. Knowledge representation Methods
- c. DM Tools
- d. Data Pre-processing

2. Association Mining

- a. Classification vs Clustering
- b. Association Rule Mining
- c. Mining Frequent Pattern
- d. Pattern Evaluation methods
- e. Ensembles Methods
- f. Imbalance sampling
- g. Model Selection and Evaluation
- h. Feature Selection

3. Web mining

- a. Content Mining
- b. Structure Mining
- c. Usage Mining
- d. Document Clustering

- e. Indexing and Crawling
- f. Architecture of Search Engine

3. Data Warehousing

- a. Operational data warehouses
- b. Extract, Transform and Load
- c. Online Transaction Processing
- d. Online Analytical Processing
- e. OLAP Servers

4. Data Cube

- a. Data Cube and operations
- b. Multidimensional data model
- c. Advancement in Warehouse architectures

IV. Course Outcomes

By the end of this course a student will be able to

- CO1** Understand the concepts of data mining
- CO2** Apply association techniques to solve real-world business problems
- CO3** Analyse the web mining techniques
- CO4** Examine the data warehousing systems and their usage
- CO5** Understand data cube architecture

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	2		3			2		K2
CO 2	2	1	2	3		2		3	K3
CO3	2	2		3		2	2		K4
CO 4	2	1		3			2	1	K4
CO 5	2	2		3		2	2		K2

VI. Course Materials

a. Mandatory

Gupta, G.K. (2014). *Introduction to data mining with case studies*. (3rd ed.). Prentice Hall of India Learning Private Limited.

b. Additional

1. Jiawei, H., Kamber, M., & Pei, J. (2012). *Data mining concepts and techniques*. (3rd ed.). Morgan Kaufmann Publishers.
2. Kimball, R., Ross, M. (2014). *The data warehouse toolkit: The definitive guide todimensional modeling*. (3rd ed.). Wiley.



Elective Course

Course Code: 23PBA3403 | Title: Big Data Analytics | Credits:3

I. Course Description

This course introduces the students to learn the big data analytics and their architectures. This course also deals various analytical techniques to analyze the structured, semi structured and unstructured data.

II. Course Objectives

1. To understand the concepts of Big data and types of data
2. To Learn usage of various components of Big data management
3. To understand non-relational databases and semi structured, unstructured data
4. To apply the various web sentiment analytics to solve business problems
5. To study the techniques to solve the problems using Natural Language Processing

III. Course Content

1. Big Data Analytics

- a. Concepts
- b. Types of Big Data
- c. Virtualization
- d. Components of Big Data Technology
- e. Distributed storage systems
- f. Row and column store

2. Big Data Management

- a. Linux, Apache, MySQL, PHP
- b. Scale in and Scale out Architecture
- c. Map Reduce
- d. Hadoop Conceptual frame work
- e. Big Data warehouses

3. Text Mining

- a. Identification
- b. Mining
- c. Categorization
- d. Clustering
- e. Automatic text Summarization
- f. Review Analytics

4. Web Sentiment Analytics

- a. Sentiment Classification
- b. Word, Sentence, Document, Features Level sentiment
- c. Sentiment Lexicon Generation
- d. Opinion Summarization
- e. Opinion Spam Detection

5. Natural Language Processing

- a. Linguistic Approach
- a. Morphological Analysis, Phonology
- b. Tokenization, Stemming, Lemmatization
- c. Part of speech tagging
- d. Syntactic and Semantic representation
- e. Parsing Techniques
- f. Models in NLP

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the concepts of Big data and types of data.

CO2 Apply the various components of Big data management

CO3 Examine the non-relational databases and semi structured, unstructured data

CO4 Analyze the data using the various web sentiment analytics techniques to solve business problems.

CO5 Evaluate the techniques to solve the problems using Natural Language Processing.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	2		3			2		K2
CO 2	2	1	2	3		2		3	K3
CO3	2	2		3		2	2		K4
CO 4	2	1		3			2	1	K4
CO 5	2	2		3		2	2	1	K5

VI. Course Materials

1. Mandatory

Soumendra, M., Jagadeesh, M., & Srivatsa, H. (2013). *Big data imperatives – Enterprisebig data warehousing, BI implementations and analytics*. (1st ed.). A Press.

2. Additional

Michael, M., Chambers, M., & Dhiraj, A. (2013). *Big data big analytics*. Wiley India. Bing, L. (2015). *Sentiment analytics: mining opinions, sentiments and emotions*. Cambridge University Press.



Elective Course

Course Code: 23PBA3404 | Title: Software Engineering | Credits: 3

I. Course Description

This course gives an overview of Software Development Life Cycle and introduces the students to different methods, approaches and process of software development.

II. Course Objectives

1. To explain the concept and process of software engineering
2. To discuss the basics of project management
3. To apply the various methods for software analysis and design
4. To examine the various types of software testing
5. To investigate the latest development in the software development

III. Course Content

- 1. Software Process**
 - a. The Software Process Models
 - b. The Linear Sequential Model
 - c. Prototyping Model
 - d. The Rapid Application Development Model
 - e. The Evolutionary Software Process Models
 - f. Agile Modeling
- 2. Project Management Concepts**
 - a. People, Product, Process, Project
 - b. Measure, Metrics, Indicators
- 3. Software Analysis**
 - a. Requirements Analysis
 - b. Analysis Modelling
 - c. Data Modeling
 - d. Functional Modeling
 - e. Behaviour Modeling
 - f. Agile Modelling
- 4. Software Design**
 - a. Design Process
 - b. Modular Design
 - c. Architectural Design
 - d. User Interface Design
 - e. Component Level Design

5. Software Testing

- a. Test Case Design
- b. White box Testing
- c. Black Box Testing
- d. Integration Testing
- e. Unit Testing

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the concept and process of software engineering

CO2 Explain the basics of project management

CO3 Apply the various methods for software analysis

CO4 Demonstrate the various types of software design

CO5 Evaluate the latest development in the software testing

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	2		3			2		K2
CO 2	2	1	2	3		2		3	K2
CO3	2	2		3		2	2		K3
CO 4	2	1		3			2	1	K3
CO 5	2	2		3		2	2	1	K5

VI. Course Materials

a. Mandatory

Pressman, R.S. (2019). *Software engineering: A practitioner's approach*. (9th ed.). McGraw Hill Education.

b. Additional

Sommerville, I. (2016). *Software engineering*. (10th ed.). Pearson Education.



Elective Course

Course Code: 23PBA3405 | Title: Structured Query Language | Credit: 1

I. Course Description

In this course deals the concept of data base and highlight the need for RDBMS in the functional areas of business. The course provides knowledge on data models, constraints, functions, and queries in relational database management system.

II. Course Objectives

1. To understand and Learn the basics of RDBMS and their usage in the business.
2. To apply the basics programming skills to solve problem using SQL
3. To create data base using Constrains in SQL

III. Course Content

1. Data Base

- a. Basic Concepts
- b. Relational Approach
- c. Data base Design
- d. Data Modelling
- e. Normalization
- f. Client Server Technology

2. Structured Query Language

- a. Data Definition Language
- b. Data Manipulation Language
- c. Data Control Language
- d. Data Transaction Language

3. Constraints and Queries in SQL

- a. Unique, Primary, Not Null key
- b. Foreign Key, Check, Default key
- c. Simple Queries using arithmetic operators
- d. Built in functions and sub queries
- e. Order by and Group by clause

IV. Course Outcome

By the end of this course a student will be able to

CO1 Understanding of the basics of Relational Database Management Systems

CO2 Apply fundamental programming skills using SQL, enabling them to solve problems

CO3 Evaluate databases using SQL constraints

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2			3			2		K2
CO 2	2			3				2	K3
CO3	2			3			2		K5

VI. Course Materials

a. Mandatory

Shah, N. (2012). *Data base systems using Oracle - A simplified guide to SQL and PL/SQL*. (2nd ed.). PHI Learning Private Limited.

b. Additional

Loney, K, Bob, B. (2013). *Oracle Data base 12C - The complete reference: Oracle press*. McGraw Hill Education.



Elective Course

Course Code: 23PBA3406 | Title: Digital Commerce | Credit: 1

I. Course Description

This course gives the concepts of Electronic and Mobile Commerce and their applications.

II. Course Objectives

1. To learn the Concept of Digital Commerce.
2. To know the various Electronic and Mobile commerce systems.
3. To study the usage of Electronic and Mobile Commerce applications and services.

III. Course Content

1. Electronic Commerce

- a. E-commerce and Indian Business Context
- b. E- Payment Systems
- c. Digital Signature
- d. Online financial services

2. Mobile Commerce

- a. Mobile Content Providers
- b. WAP, 5G
- c. GSM, TDMA, PDA, CDMA
- d. Mobile Internet, Mobile IP
- e. Message Authentication Codes

3. M-Commerce Services

- a. Next Generation
- b. Mobile portals, Voice portals
- c. Information services
- d. WML
- e. Wire Framing

IV. Course Outcome

By the end of this course a student will be able to

CO1 Understanding of the basics of Electronic Commerce and their applications

CO2 Understand the basis of Mobile Commerce

CO3 Analyze the Mobile commerce service

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3			2		K2
CO 2				3					K2
CO3				3			2	2	K3

VI. Course Materials

a. Mandatory

Kenneth, L.C. & Traver, C.G. (2019). *E-commerce 2019: Business, technology and society*. (15th ed.). Pearson Education.

b. Additional

Duhan, P. Singh, A. (2019). *M-commerce - Experiencing the phygital retail*. CRC Press.

Supply Chain Management

Electives

Semester III



Electives

Course Code: 23PBA3501 | Title: Principles of Supply Chain Management | Credits: 3

I. Course Description

This course introduces the basic concepts and principles of supply chain management. The topics include the strategic framework, designing supply chain network, matching demand and supply, transportation networks and managing cross-sectional drivers.

II. Course Objectives

1. To learn the framework, drivers and metrics of supply chain management
2. To know the process of designing supply chain networks
3. To learn demand forecasting and aggregate planning
4. To explore the planning and designing of transportation networks
5. To learn managing cross-functional drivers in a supply chain

III. Course Content

- 1. Building A Strategic Framework to Analyse Supply Chains**
 - a. Understanding the Supply Chain
 - b. Supply Chain Performance: Achieving Strategic Fit and Scope
 - c. Supply Chain Drivers and Metrics
- 2. Designing the Supply Chain Network**
 - a. Designing Distribution Networks and Applications to Online Sales
 - b. Network Design in the Supply Chain
 - c. Designing Global Supply Chain Networks
- 3. Planning and Coordinating Demand and Supply**
 - a. Demand Forecasting in a Supply Chain
 - b. Aggregate Planning in a Supply Chain
 - c. Coordination in a Supply Chain
- 4. Designing and Planning Transportation Networks**
 - a. Transportation in a Supply Chain
 - b. Design and planning for efficient and effective transportation.
- 5. Managing Cross-Functional Drivers**
 - a. Sourcing Decisions in a Supply Chain
 - b. Pricing and Revenue Management in a Supply Chain
 - c. Sustainability and the Supply Chain

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Understand the drivers and metrics of supply chain

CO2 Analyse the distribution networks

CO3 Apply techniques to forecast demand

CO4 Assess the transportation network designs

CO5 Explain the cross functional drivers in a supply chain

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K Levels
CO 1		3		3				2	K2
CO 2		3		3				2	K4
CO3		3	3	3				2	K3
CO 4		3		3	2			2	K4
CO 5		3		3		3		2	K5

VI. Course Materials

a. Mandatory

Chopra, S. (2019). *Supply chain management strategy, planning, and operation*. (7th ed.). Pearson.

b. Additional

Richard E. & Others. (2015). *Principles of supply chain management*.UK: CRC Press.



Electives

Course Code: 23PBA3502 | Title: Supply Chain Data Management Analysis | Credits: 3

I. Course Description

This course aims to provide the students an in-depth knowledge on analysing data for solving supply chain management problems. It helps the students to learn to forecast demand for supply chain and create supply chain model through a scientific process.

II. Course Objectives

1. To learn moving average technique
2. To distinguish between linear and non-linear fit
3. To study exponential smoothening methods
4. To understand model optimisation trends
5. To learn to identify outliers

III. Course Content

1. Statistical Forecast I

- a. Data Management
- b. Data value chain
- c. Moving Average
- d. Forecast Error

2. Statistical Forecast II

- a. Linear Fit
- b. Non-Linear Fit

3. Statistical Forecast III

- a. Exponential Smoothing
- b. Underfitting – Double Exponential Smoothing

4. Statistical Forecast IV

- a. Model Optimisation – Double Smoothing with Damped Trend
- b. Overfitting – Triple Exponential Smoothing

5. Statistical Forecast V

- a. Outliers – Triple Additive Exponential Smoothing

IV. Course Outcomes

By the end of this course, a student will be able to

- CO1 Understand moving average technique to forecast demand
- CO2 Compare between linear and non-linear fit
- CO3 Apply exponential smoothening
- CO4 Examine model optimization
- CO5 Estimate the outliers

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		3		3					K2
CO3				3					K3
CO 4		3		3					K4
CO 5		3		3					K5

V. Course Materials

a. Mandatory

Vandepu, N. (2018). *Data science for supply chain forecast*. De Gruyter.

b. Additional

Cases and materials will be given by the faculty at the start of the course.



Electives

Course Code: 23PBA3503 | Title: Quality Management Using Statistical Data Analytics |

Credits: 3

I. Course Description

The course provides comprehensive coverage of the basic principles of state-of-the-art concepts and applications. The objective is to give the student a sound understanding of the principles of quality management and apply it in varied situations.

II. Course Objectives

1. To understand quality control and improvement
2. To learn the methods of statistical process control
3. To study the applications of statistical process control
4. To know the control charts for variables
5. To study the control charts for attributes

III. Course content

1. Quality Improvement in the Modern Business Environment

- a. The Meaning of Quality and Quality Improvement
- b. Brief History of Quality Control and Improvement
- c. Statistical Methods for Quality Control and Improvement
- d. Management Aspects of Quality Improvement

2. Statistical Process Control - I

- a. Introduction
- b. Chance and Assignable Causes of Quality Variation
- c. Statistical Basis of the Control Chart

3. Statistical Process Control-II

- a. Implementing SPC in a Quality Improvement Program
- b. Applications of Statistical Process Control
- c. Quality Improvement Tools in Transactional and Service Businesses

4. Control Charts for Variables

- a. Introduction
- b. Control Charts for \bar{x} and R
- c. Control Charts for \bar{x} and s
- d. The Shewhart Control Chart for Individual Measurements

5. Control Charts - Attributes

- a. Charts – P, NP, C, U
- b. Applications of Variables Control Charts

IV. Course Outcomes

By the end of this course, a student will be able to

- CO1 Understand the concepts of quality management
- CO2 Apply the concepts of statistical process control
- CO3 Apply the quality improvement techniques in decision-making.
- CO4 Analyse control charts for variables
- CO5 Apply control charts for attributes

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		3		3					K4
CO3				3					K4
CO 4		3		3					K5
CO 5		3		3					K4

VI. Course Materials

a. Mandatory

Montgomery, O.C. (2009). *Introduction to statistical quality control*. (6th ed.). John Wiley and Sons, Inc.

b. Additional

Mahajan, M. (2016). *Statistical quality control*. Dhan Pat Rai and Co. Pvt. Ltd.



Electives

Course Code: 23PBA3504 | Title: Advanced Mathematical techniques for Supply Chain Management | Credits: 3

I. Course Description

This course deals with advanced mathematical modeling tools that are highly essential for supply chain managers. It covers Integer Programming, Queuing Models, Game and Decision Theory, and Dynamic Programming techniques.

II. Course Objectives

1. To learn integer programming model
2. To study game theory and its applications
3. To explore the role of decision theory in supply chain decisions
4. To learn queueing models
5. To understand the importance of dynamic programming model

III. Course Content

1. Integer Programming Model

- a. Mathematical Formulation of an IPP
- b. Branch and Bound Method [using TORA]

2. Game theory

- a. Two Person Zero Sum Game
- b. Problems with Pure and Multi Strategy Model
- c. Solving Game Theory Model using Algebraic Method, Graphical Method
- d. Using LPP concept to solve a Game Model [TORA]

3. Decision theory

- a. Decision Making Kinds
- b. Decision Theory approaches to Business

4. Queuing theory

- a. Single Server model
- b. Two Server Model

5. Dynamic Programming model

- a. Mathematical modelling
- b. Solving the Model using DPP

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Understand the integer programming model

CO2 Apply game theory in supply chain decision making

CO3 Analyse decision making situation using decision theory

CO4 Examine queueing theory in supply chain context

CO5 Explain the dynamic programming model in supply chain

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		3		3					K3
CO3				3					K4
CO 4		3		3					K4
CO 5		3		3					K5

VI. Course Materials

a. Mandatory

Mariappan, P. (2002). *Operations research - methods and applications*. (2nd ed.). New Century Book House Private Limited.

b. Additional

Taha, H.A. (2019). *Operations research - An introduction*. (10th ed.). Pearson.



Electives

Course Code: 23PBA3505 | Title: Lean Six Sigma | Credit: 1

I. Course Description

This course introduces six sigma concepts, methodologies, and tools tailored for supply chain management. It covers concepts to enhance quality and productivity across the entire value chain.

II. Course Objectives

1. To learn six sigma principles in supply chain management
2. To study six sigma tools for process improvement
3. To explore the integration of six sigma with other management initiatives

III. Course Content

1. **Six sigma**
 - a. Six Sigma Overview
 - b. Six Sigma Framework
 - c. Six Sigma Experiences and Leadership
2. **Tools used in Six Sigma**
 - a. Basic QC
 - b. Six Sigma Tools
 - c. Quality Cost and Six Sigma
3. **Six Sigma and Other Management Initiatives**
 - a. TQM and Six Sigma
 - b. ISO 9000 Series and Six Sigma
 - c. Lean Manufacturing and Six Sigma

IV. Course Outcomes

By the end of this course, a student will be able to

- CO1 Understand six sigma principles
- CO2 Apply six sigma tools for process improvement.
- CO3 Assess the integration of six sigma with other management initiatives

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		2		2					K3
CO3				3			3	2	K5

VI. Course Materials

a. Mandatory

Park, S.H. (2003). *Six sigma for quality and product promotion*. Asian Productivity Organization.

b. Additional

Evans, J. R., Lindsay, W. M. (2019). *Managing for quality and performance excellence*. Cengage Learning.



Electives

Course Code: 23PBA3506 | Title: Digital Supply Chain Management | Credit: 1

I. Course Description

This course equips students with the knowledge and skills necessary to navigate the complexities of digital transformation within supply chain management.

II. Course Objectives

1. To learn the role of digital transformation in supply chain management
2. To study the components and functionalities of Internet of Things (IoT)
3. To explore the evolution of supply chain management in industry 4.0

III. Course Content

1. Digital Transformation

- a. Role of Digital Transformation in SCM
- b. The Internet things of SCM

2. Supply chain management 4.0

- a. Impact of the Internet things of SCM 4.0
- b. Sustainable supply chain Network Design with IOT

3. Robotics in SCM

- a. AI, Robotics and Autonomous system in SCM
- b. Smart Enterprise and Warehouse

IV. Course Outcomes

By the end of this course, a student will be able to

- CO1 Understand the role of digital transformation and its effect on supply chain operations
- CO2 Analyse the impact of IoT in SCM
- CO3 Explain the role of AI and robotics in developing smart enterprise

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		2		2					K4
CO3				3			3	2	K5

V. Course Materials

a. Mandatory

Paksoy, T., Kochan, C. G., & Ali, S. S. (2020). Logistics 4.0: Digital transformation of supply chain management. CRC Press.

b. Additional

Tan, A., & Shukla, S. (2021). Digital transformation of the supply chain: A practical guide for executives. World Scientific.

Finance

Electives

Semester IV



Elective Course

Course Code: 22PBA4101 | Title: Portfolio Management | Credits: 3

I. Course Description

The course aims at providing students with an understanding of portfolio construction and management in the context of risk diversification. Further, the course aims at providing students with skills to make intelligent decisions regarding the allocation of resources and the formation of optimal portfolios.

II. Course Objectives

1. To understand the different approaches to portfolio analysis
2. To appreciate the important modern portfolio theories
3. To determine the price of an asset using asset pricing models
4. To evaluate the performance of portfolios
5. To perform cost benefit analysis of portfolio revision

III. Course Content

1. Portfolio Analysis

- a. Portfolio Risk Exposures
- b. Portfolio Risk Return
- c. Capital Asset Pricing Model
- d. Capital Market Line
- e. Security Market Line
- f. Portfolio Value at Risk

2. Portfolio Theories

- a. Efficient Market Theory
- b. Random Walk Theory
- c. Markowitz Portfolio Optimization
- d. Sharpe's single index portfolio selection method
- e. Arbitrage Pricing Theory

3. Mutual funds

- a. Structure and Types of Mutual funds
- b. Mutual Fund Asset Composition
- c. Fund Return Measurement

4. Portfolio Performance Evaluation

- a. Sharpe's Portfolio Performance Measure
- b. Treynor's Portfolio Performance Measure
- c. Jensen's Portfolio Performance Measure
- d. Comparison of Sharpe, Treynor and Jensen measure

5. Portfolio Management

- a. Active and Passive Management
- b. Rebalancing Portfolios
- c. Cost benefit analysis of rebalancing/ revision

IV. Course Outcomes

By the end of this course a student will be able to:

CO1 Explain the different approaches to portfolio analysis

CO2 Discuss the modern and traditional portfolio theories and approaches

CO3 Outline the functioning and performance of mutual funds in Indian market

CO4 Evaluate the performance of the portfolios based on Sharpe's, Treynor and Jensen measures

CO5 Recommend the strategies of balancing and managing portfolios

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	3		3					K2
CO 2		3		3					K6
CO3		3		3			1		K2
CO 4		3		3					K5
CO 5		3		3	1		2		K5

VI. Course Materials

a. Mandatory

Prasanna Chandra. (2017). Investment analysis and portfolio management. New Delhi: McGraw-Hill Professional.

b. Additional

Ranganatham M. & Madhumathi R. (2012). Security analysis and portfolio management. (2 ed.) New Delhi: Pearson.



Elective Course

Course Code: 23PBA4102 | Title : Derivatives Management - II | Credits : 3

I. Course Description

The course defines the different kinds of derivatives; shows how they are used to achieve various hedging and speculating objectives, introduces a framework for pricing derivatives, and studies several applications of derivative-pricing techniques outside derivative markets. The course presents and analyzes derivatives, such as forwards, futures, and options.

II. Course Objectives

1. To describe the pricing strategies for forward and futures contracts and assess the payoff of future contracts
2. To demonstrate the application of Option pricing model
3. To facilitate student comprehension and application of currency and interest rate swap valuation
4. To foster a deep understanding of emerging financial derivatives products
5. To emphasize knowledge acquisition and comprehension of derivative regulations

III. Course Content

- 1. Price Determination of Forward and Futures Contract**
 - a. Future Pricing strategies
 - b. Margin and MTM
 - c. Pricing and Trading mechanism of Forward contract
 - d. Payoff from Forward and Futures contract
- 2. Option Pricing Models**
 - a. Determinants of Option Prices
 - b. Options pricing Model (Binomial and Black-Scholes Model)
 - c. Payoff from long position and short position of call option
 - d. Payoff from long position and short position of put option
 - e. Option Strategies - Butterfly
- 3. Swap Contract**
 - a. Valuation of interest rate swap
 - b. Valuation of currency swap
- 4. Recent trends in Derivatives Market**
 - a. Exotic options
 - b. Credit Derivatives

- c. Currency Derivatives, Credit Linked Notes, Credit Default Swaps, , ABS, Weather derivatives, Bitcoin futures, , inflation indexed derivatives

5. Regulations of Financial Derivatives

- a. Derivatives Regulations in Indian Stock Market
- b. Genesis of Regulation in Financial Derivatives
- c. Case studies

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Identify the key strategies involved in pricing forward and future contracts
- CO2 Examine various option pricing models to compute theoretical option values
- CO3 Explain the fundamental principles governing currency and interest rate swap valuation
- CO4 Categorize the emerging financial derivative products with potential risk and return
- CO5 Summarize derivative regulations

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		2		3					K3
CO 2		3		3	2				K4
CO3		3		3					K5
CO4		3		3	2			2	K4
CO5		2		3					K2

VI. Course Materials

a. Mandatory

Hull, J.C. (2017). *Options, futures and other derivative securities*. (10th ed.). Pearson.

b. Additional

1. Gupta, S.L. (2017). *Financial derivatives - Theory, concepts and problems*. (2nd ed.). Prentice Hall of India.
2. Kumar, S.S.S. (2010). *Financial derivatives - Theory, concepts and practice*. (4th ed.). PHI Learning.
3. Stulz (2011). *Risk management and derivatives*. (6th ed.). Cengage Learning.



Elective Course

Course Code: 23PBA4103 | Title: Financial Modelling using Spreadsheet – II | Credits: 3

I. Course Description

This course aims at giving in-depth knowledge to the students on discounted cash flow techniques using spread sheet.

II. Course Objectives

1. To utilize spread sheet functions to solve real world financial problems based on Time value of money
2. To comprehend asset pricing models using spread sheet
3. To apply various risk and return metrics
4. To evaluate the cost of capital components
5. To create DCF model using spread sheet

III. Course Content

1. Time value of money

- a. Present value and future value of a stream of cash flows using Excel
- b. Types of cash flows encountered in financial analysis
- c. Intrinsic value Vs required rate of return
- d. Risk and Return Analysis
- e. Theory of risk analysis – CAPM

2. Risk and Return Analysis

- a. Capital Asset Pricing Model

3. Cost of Capital

- a. Firm's Weighted Average Cost of Capital (WACC) using both book- and market-value weights
- b. Firms' WACC changes vs total capital requirements

4. Capital Budgeting

- a. Discounted payback
- b. Net Present Value
- c. Internal Rate of Return

5. Discounted cash flow technique

- a. Free cash flows
- b. DCF model

IV. Course Outcomes

By the end of this course a student will be able to:

CO1 Apply principles of Time value of money to solve real-time financial problems

CO2 Analyze systematic risk and return of securities using CAPM

CO3 Analyze the cost of capital components

CO4 Apply the understanding of capital budgeting techniques

CO5 Estimate DCF model in valuing businesses

V. COs - POs - K Levels Matrix

CO<->PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3					K3
CO 2		3		3					K4
CO3		3		3			1		K4
CO 4		3		3					K3
CO 5		3		3	1		2		K5

VI. Course Materials

a. Mandatory

Mayes, T.R. (2016). *Financial analysis with microsoft excel*. Cengage Learning.

b. Additional

Winston, W.L. (2017). *Microsoft excel 2016 - Data analysis and business modeling*. Microsoft Press.

Proctor, S. K. (2010). *Building financial models with microsoft excel: A guide for business professionals*. Wiley.



Elective Course

Course Code: 23PBA4104 | Title: Business Valuation | Credits: 3

I. Course Description

This course has been designed with an objective to familiarize students with key aspects of business analysis and valuation. It will equip the students to understand, analyze and value an enterprise.

II. Course Objectives

1. To understand the purpose and significance of financial statement analysis and valuation concepts in business decision-making.
2. To gain proficiency in analyzing balance sheets and income statements to assess a company's financial health and performance.
3. To develop skills in identifying and evaluating various types of risks, including liquidity, solvency, credit, and bankruptcy risks.
4. To acquire knowledge of cash flow statements and their relationship with income statements and balance sheets to assess cash flow generation and usage.
5. To learn different methods and approaches for business valuation, including cash-flow-based, earnings-based, and market-based approaches.

III. Course Content

1. **Overview of Financial Statement Analysis and Valuation**
 - a. Purpose of underlying concepts
 - b. Overview of useful tools for analyzing
 - c. Role in an efficient capital market
2. **Business Analysis: Understanding Balance sheets and Income Statements**
 - a. Mixed attribute measurement model
 - b. Asset and liability valuation
 - c. Income Recognition
 - d. Profitability Analysis based on various measures of income
 - e. Economic and strategic determinants of ROA and ROE
 - f. Benefits and limitations of financial ratios
3. **Risk Analysis**
 - a. Short term liquidity risk
 - b. Long term solvency risk
 - c. Credit risk
 - d. Bankruptcy risk

4. Business Analysis: Understanding Cash Flow Statements

- a. Income flows versus cash flows
- b. Relationship between net income, balance sheets and cash flows
- c. Financing Activities
- d. Investing Activities
- e. Operating Activities

5. Business Valuation

- a. Cash – Flow Based Approaches
- b. Earnings – Based Approaches
- c. Market – Based Approaches

IV. Course Outcomes

By the end of this course a student will be able to:

CO1 Outline the purpose and significance of financial statement analysis and valuation concepts in business decision-making.

CO2 Assess a company's financial health and performance.

CO3 Evaluating various types of risks, including liquidity, solvency, credit, and bankruptcy risks

CO4 Assess the inflow and outflow of cash in various activities

CO5 Apply various approaches for business valuation

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3					K2
CO 2		3		3		2			K5
CO3		3		3		2	1		K5
CO 4		3		3		2			K5
CO 5		3		3	1	2	2	1	K5

VI. Course Materials

a. Mandatory

Robinson, T. R., Henry, E., Pirie, W. L., & Broihahn, M. A. (2015). *International financial statement analysis*. (3rd ed.). John Wiley & Sons.

b. Additional

Wahlen, J. M., Baginski, S. P., & Bradshaw, M. T. (2015). *Financial reporting, financial statement analysis and valuation*. Cengage.



Elective Course

Course Code: 23PBA4105 | Title : Personal Finance | Credit : 1

I. Course Description

Personal Finance course designed to help students to understand the issues involved in planning finances and investments at a personal level, and to be in a position to provide advice on the issues. The course covers the basic principles needed for effective personal finance management, including the practical applications of money management, budgeting, taxes, credit, insurance, housing, investments, and retirement planning.

II. Course Objectives

1. To understand individual financial planning.
2. To know the computation of Personal Income Tax and filing of return.
3. To explain savings and investment avenues for an individual

III. Course Content

1. Financial Planning

- a. Financial Planning
- b. Steps in Financial Planning
- c. Personal Budget

2. Personal Income Tax

- a. Tax Planning: Concepts and Strategies
- b. Filing of Return

3. Investment Avenues

- a. Personal savings and Investment
- b. Savings instruments of Post Office and Banks
- c. Investment in debentures, equity, corporate and Government Bonds

IV. Course Outcomes

By the end of this course a student will be able to:
CO1 Plan the budget for an individual
CO2 Show the e-filing of returns
CO3 Explain the various avenues of investments

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K3
CO 2		3		3				3	K2
CO3		3		3			2	3	K5

VI. Course Materials

a. Mandatory

Madura, J. (2010). *Personal finance*. (7th ed.). Pearson Education.

b. Additional

Mittra, S., Rai, S.K., Sahu, A.P. Starn, H. (2015). *Financial planning - Theory and practice*. (1st ed.). SAGE Publishing.

Sinha, M. (2016). *Financial planning*. (2nd ed.). McGraw Hill Education (India) Private Limited.

Pandit. (2014). *The only financial planning book*. Network 18 Publications Ltd.

Kapoor, J.R., Dlabay, L.R. & Hughes, R.J. (2004). *Personal finance* (9th ed.). Tata McGraw Hill Publishing Company Ltd.



Elective Course

Course Code: 23PBA4106 | Title: Enterprise Risk Management | Credit: 1

I. Course Description

This course has been designed with an objective to familiarize students with key aspects of Enterprise Risk Management. It will equip the students to understand the purpose of risk management in organizations' and the systematic application of policies, procedures and practices.

II. Course Objectives

1. To develop a comprehensive understanding of risk management principles.
2. To explore the different stages involved in the risk management process.
3. To understand the importance of risk governance and organizational culture in effective risk management

III. Course Content

1. Introduction to Risk Management Principles

- a. Introduction: Risk Management
- b. Risk: Appetite, Tolerance, components of risk
- c. Severity Matrix
- d. Reasoning about Probability, Uncertainty and Likelihood

2. Stages in Risk Management

- a. Risk Identification, Assessment & Mitigation
- b. Risk Monitoring & Review
- c. Risk Controls & residual risk
- d. Risk Register

3. Risk Governance and Culture

- a. Risk and organizational Culture
- b. Measuring and Managing Risk Culture
- c. Role of the Board of Directors and Chief Risk officer
- d. COSO framework

IV. Course Outcomes

By the end of this course a student will be able to:

- CO1 Assess a severity matrix
- CO2 Develop a risk register
- CO3 Appraise risk governance and culture in an organisation

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3	2	3				3	K5
CO 2		3	3	3				3	K6
CO3		3	1	3				3	K5

VI. Course Materials

a. Mandatory

Lam, J. (2014). *Enterprise risk management: From incentives to controls*. Wiley.

b. Additional

Gerardus, B (2020). *COSO Internal Control Integrated Framework A Complete Guide*. 5starcooks.

Marketing

Electives

Semester IV



Elective Course

Course Code : 23PBA4201 | Title: Sales and Distribution Management | Credits: 3

I. Course Description

This course aims to familiarise the students with selling concepts and a broad framework which helps in developing a sound sales policy; organize and manage sales force; and develop a robust organization. Another key objective of the course is to make the students acquire sufficient understanding on marketing channels and enable them to develop a strong distribution system for companies.

II. Course Objectives

1. To understand the fundamentals of sales
2. To acquire professional selling skills.
3. To learn sales forecasting techniques
4. To know the strategies of sales administration
5. To explore the models and methods for distribution management

III. Course Content

1. Sales fundamentals

- a. Marketing P's revisited.
- b. Marketing versus Selling
- c. Sales and Distribution connect.

2. Selling Skills

- a. Psychology of selling.
- b. Buyer Decision Making process.
- c. Sales Process

3. Sales Forecasting

- a. Techniques
- b. Choosing the right technique for forecasting
- c. Sales Forecasting - practical application using statistical tools

4. Sales Administration

- a. Basic tenets of a sales organization
- b. Organizational designs - choosing the right one- sales specific
- c. Recruitment, training, motivation and sales costs.

5. Distribution Management

- a. Direct versus indirect models
- b. Distribution structure in vogue- analysis
- c. Linking marketing and financials of channel partners for improving turnover and profitability

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Outline the connect between sales and distribution

CO2 Utilize the sales skills for an effective sales process

CO3 Apply different sales forecasting techniques in different business segments or sectors

CO4 Evaluate management of sales territories through different organisational structures

CO5 Analyse the different distribution models

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1		2	3				3	K2
CO 2			2	3		2	2	1	K3
CO3	1	1		3			2	2	K3
CO 4	1	1		3				2	K5
CO 5	1	1	1	3	3	1	2	1	K4

VI. Course Materials

a. Mandatory

Havaldar, K. (2011). *Sales and distribution management*. (4th ed.). McGraw Hill Education (India) Ltd.

b. Additional

Anderson, P. K. (2017). *HBR's must reads on sales*. Harvard Business Review.



Elective Course

Course Code: 23PBA4202 | Title: Retail Management | Credits : 3

I. Course Description

This course provides a comprehensive view of retailing environment in India and exposes the students to current issues and developments in the industry. It deals with the retail environment, retail strategy, shopper behavior, store location, merchandising, store operations, pricing, promotion and emerging technologies in retail.

II. Course Objectives

1. To understand the evolution and challenges of the Indian retail sector.
2. To assess consumer behaviour and its impact on retail decision-making.
3. To select retail sites strategically and analyse their potential.
4. To oversee merchandise planning and store operational efficiency.
5. To establish retail pricing strategies and implement new technologies.

III. Course Content

1. Introduction to Retail Management

- a. Retailing - Indian Retail Industry and Economy
- b. Functions and Activities of Retailers/Evolution of Retailing in India
- c. Trends in Retail Formats
- d. Retail Strategy
- e. Changing Face of Retailing
- f. Challenges for Retailers and Drivers of Retail Success in India

2. Understanding the Retail Consumer

- a. Factors Affecting Shopper Behavior
- b. Stages of the Shopper's Decision-Making Process
- c. Influence of Situational Variables on Shopping Behavior
- d. Research and Analysis of Consumer Profiles
- e. Retail Market Segmentation, Targeting and Positioning

3. Retail Site Selection

- a. Retail Location Strategy
- b. Factors Affecting Location Decision
- c. Types of Retail Locations
- d. Trade Area Analysis and Site Selection Analysis
- e. Mall Management
- f. Methods of Retail Expansion

4. Merchandising and Store Operations

- a. Merchandise Planning and Procurement
- b. Category Management
- c. Retail Branding

- d. Private Labels
- e. Store Design, Layout and Visual Merchandising
- f. Store Operations and Financial Aspects of Retail

5. Retail Pricing, Promotion and Technologies

- a. Retail Pricing
- b. Selection of Promotion Mix in Retail
- c. Supply Chain and Competitive advantage
- d. Electronic Data Interchange
- e. Vendor Managed Inventory
- f. Continuous Planning, Forecasting and Replenishment
- g. Emerging Retail Technologies

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Explain the evolution of the Indian retail industry and formulate strategies for success.
- CO2 Analyse shopper behaviour to optimize retail marketing strategies.
- CO3 Assess factors for retail site selection to devise effective location strategies.
- CO4 Design store operations and visual merchandising to enhance the customer experience.
- CO5 Integrate advanced pricing strategies and emerging technologies to strengthen retail competitiveness.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3					K2
CO 2		2		3					K4
CO3		3		3	2				K5
CO 4		3		3	2				K6
CO 5		3		3	2		3	3	K5

VI. Course Materials

a. Mandatory

Pradhan, S. (2020). *Retailing management*. (6th ed.). McGraw Hill Education (India) Private Limited.

b. Additional

Bajaj, C., Tuli, R., & Srivastava, V.N. (2016). *Retailing management*. (6th ed.). Oxford University Press.

Levy, M., Weitz, B., & Pandit, A. (2012). *Retailing management*. (8th ed.). McGraw Hill Education (India) Private Limited.



Elective Course

Course Code: 23PBA4203 | Title: Marketing Analytics | Credits: 3

I. Course Description

This course provides students adequate knowledge about Marketing Analytics. The students will have an exposure about various data related to customers, suppliers and other stake holders which is important to take predictive decisions.

II. Course Objectives

1. To know the comprehensive understanding of various data types used in marketing analytics
2. To apply statistical techniques in marketing data
3. To learn analytical techniques in Revenue Management and Pricing
4. To estimate customer lifetime value using analytics
5. To use analytics on the data of advertising, retailing and social media

III. Course Content

1. Introduction to Marketing Analytics

- a. Types of Data
- b. Decision Making
- c. Charts to summarize marketing data
- d. Descriptive, Predictive and Prescriptive data analytics

2. Statistics

- a. Data Visualization techniques
- b. Linear Regression Models
- c. Application of Linear Regression in sales data
- d. Cluster Analysis

3. Revenue Management and Pricing

- a. Point of Sale Data
- b. Right Pricing Approach
- c. Pricing Plans

4. Market Segmentation and Customer Value

- a. Market Segmentation using Analytics
- b. Net Promoter Score
- c. Calculation of Lifetime Customer Value

5. Retailing, Advertising and Social Media

- a. Market Basket Analysis and Lift
- b. Measuring advertisement effectiveness
- c. Media Selection Models

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the basics of marketing analytics

CO2 Apply statistical techniques and linear regression models to analyze marketing data

CO3 Apply marketing analytics for revenue management and pricing

CO4 Estimate lifetime customer value

CO5 Analyse retail and advertisement data

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K2
CO 2		3		3			3	3	K3
CO3		3		3			3	3	K3
CO4		3		3			3	3	K6
CO5		3		3	3		3	3	K4

VI. Course Materials

a. Mandatory

Gupta, S. & Jathar, A. (2021). *Marketing analytics*. Wiley India Pvt. Ltd.

b. Additional

Grigsby, M. (2015). *Marketing analytics*. Kogan Page Limited.



Elective Course

Course Code: 23PBA4204 | Title: International Marketing | Credits: 3

I. Course Description

The course is intended to give the students adequate knowledge in international marketing of goods and services. It enables to differentiate domestic V/s international marketing and the opportunities and challenges in international marketing. Starting with evaluation of macro and micro environmental factors for international market entries, strategizing and implementing will be the key areas of the course.

II. Course Objectives

1. To understand domestic and international marketing –the strategic differences.
2. To learn the orientation of management towards international markets and marketing - the problems and the underlying opportunities.
3. To study the international trade environment and the bodies which regulate international business.
4. To examine the different modes of entry into international markets.
5. To explore the possibilities of product launches, pricing, communication and other promotional efforts.

III. Course Content

1. Introduction to International Marketing

- a. Scope and advantages for firms to go international
- b. Customer values – value equation in different international markets - International Marketing Environment

2. International Marketing – Orientation – Opportunities and Challenges

- a. Management Orientation –MNC's, TNC's etc.,
- b. Opportunities and Challenges in International Marketing

3. International Trade Environment

- a. WTO agreements
- b. Specific implication of WTO agreements on International marketing by Indian firms

4. International Market Entry Strategies

- a. Different entry modes and strategies – basics of what and why
- b. Joint Ventures
- c. Direct Investment
- d. Strategic Alliances

5. International Product Planning and Logistics.

- a. Adoption and Standardisation
- b. International Market Segmentation, Targeting and Positioning – for product and services
- c. Distribution and Logistics plan - transportation and international packaging practices.
- d. Ethical and legal issues in international marketing.

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Recall the key elements of the international marketing environment and their impact on customer values.

CO2 Understand the different management orientations, problems and opportunities in international business.

CO3 Apply knowledge of WTO agreements and their specific implications to develop international marketing strategies for Indian firms.

CO4 Analyze the appropriateness of different entry modes and strategies in specific international markets.

CO5 Evaluate and develop international distribution and logistics plan by taking into consideration the ethical and legal issues.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K2
CO 2		3		3				3	K2
CO3		3		3				3	K3
CO4		3		3			3	3	K4
CO5		3		3		3	3	3	K5

VI. Course Materials

a. Mandatory

Cateora P.R., Gilly, M.C., & Graham, J.L. (2010). *International marketing* (15th ed.). McGraw-Hill Education.

b. Additional

Warren, K.J. & Mark, G.C. (2017). *Global marketing*. (9th ed.). Pearson Education.



Elective Course

Course Code: 23PBA4205 | Title: Rural Marketing | Credit: 1

I. Course Description

This course exposes the students to rural marketing from an Indian context. It takes a rural marketing perspective and covers the essentials of rural marketing, rural STP process and designing rural marketing mix.

II. Course Objectives

1. To learn the key elements of rural marketing
2. To study product and pricing strategies for rural markets
3. To explore the rural promotion and distribution strategies

III. Course Content

1. Indian Rural Markets

- a. Rural India: A Brief Profile
- b. Market Segmentation
- c. Consumer Behaviour
- d. Challenges and Opportunities

2. Product and Pricing Strategies for Rural Markets

- a. Marketing Mix
- b. Product Strategies for Rural Market
- c. Pricing Strategies for Rural Market

3. Promotion and Distribution Strategies for Rural Markets

- a. Designing right promotion mix
- b. Promotional campaigns
- c. Distribution and Logistics Management
- d. New approaches to reach out rural markets

IV. Course Outcomes

By the end of this course a student will be able to

- CO1 Understand the rural marketing environment and its difference from an urban context.
- CO2 Analyze the product and pricing strategies for rural markets
- CO3 Evaluate promotion and distribution strategies for rural markets

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	1		1	3	2		1	1	K2
CO 2	2	2		3	2		1	1	K4
CO3	1	2	1	3	3		1	1	K5

VI. Course Materials

a. Mandatory

Kashyap, P. (2016). *Rural marketing*. (3rd ed.). Pearson Publication.

b. Additional

HBR's Unlocking the power of rural markets, Harvard Business Review, Boston.



Elective Course

Course Code: 23PBA4206 | Title : Direct to Consumer Marketing | Credit: 1

I. Course Description

This course aims to discover the key issues and challenges in a Digital - Physical perspective and design a D to C model in major sectors.

II. Course Objectives

1. To gain insights into Direct-to-Consumer (D2C) marketing fundamentals and growth levers
2. To create effective brand development strategies, focusing on brand identity and emotional connections with consumers
3. To learn about online market operations and platform advertising to enhance profitability

III. Course Content

1. Understanding D to C

- a. Growth levers for D to C – issues, challenges and opportunities
- b. Key growth drivers- technology, culture and economics
- c. D to C – sectors and growth paradigm

2. Brand Development & Launches

- a. Identifying white space- using consumer research tools to define/redefine products/ Brands
- b. Define Brand DNA and identity
- c. Building emotional connections with customers through story telling.
- d. Develop digital go to market strategies

3. Online Market operations

- a. Understand how different geographies and market works.
- b. Use of platform advertisements, delivery timelines, optimizing listing through proper understanding of all costs
- c. Measuring platform level profitability
- d. Planning content strategies to drive consumer via social, email, word of mouth, public relations and Search Engine Optimization

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the key drivers and challenges in D to C marketing

CO2 Analyse the brand identity and emotional connections with consumers

CO3 Evaluate online platform profitability and effectiveness.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	K Levels
CO1				3					K2
CO2		3		3					K4
CO3		3	3	3					K5

VI. Course Materials

a. Mandatory

Stevens, M. (2022). *The direct to consumer playbook: the stories and strategies of brands that wrote the D to C rules.* (1st ed.). Kogan Page.

b. Additional

Bird, D. (2007). *Commonsense direct and digital marketing.* (5th ed.). Kogan Page. Spiller, L. (2020). *Direct, digital and data-driven marketing.* (5th ed.). SAGE Publications Ltd.

HR

Electives

Semester IV



Electives

Course Code: 23PBA4301 | Title: Performance and Compensation Management | Credits: 3

I. Course Description

This course familiarizes the students with performance management process and components of compensation system followed in different institutions.

II. Course Outcomes

1. To understand the performance management system
2. To know the metrics of performance management
3. To evaluate the different performance measurements
4. To illustrate the compensation structure and differentials
5. To understand the different types of wage incentives

III. Course Content

I. Performance Management

- a. Performance Management as a system
- b. Performance Domains, Dimensions, Role Analysis
- c. Evaluating Performance Management

2. Performance Management (PM) Process and System

- a. PM planning & process
- b. Key performance indicators (KPI)/Metrics
- c. Performance Management system
- d. Measuring results and behaviour
- e. Performance accounting and audit
- f. Ethical and legal issues of PM

3. Performance measurements

- a. Appraisal Forms and Formats
- b. Appraisal Communication, Appraisal Interview, Feedback and Counselling
- c. Errors in appraisal, and reduction of errors
- d. Balance score card
- e. HR score card
- f. Employee Net Promoter Score (ENPS)

4. Compensation management

- a. Introduction to Compensation and Rewards
- b. Objective of Compensation and Rewards
- c. Framework of Compensation Policy
- d. Labour market characteristics

5. Wage Incentives

- a. Wage Incentives in India
- b. Cafeteria Style of Compensation
- c. ESOP (Employee Stock Option Plan)
- d. Executive compensation
- e. Fringe Benefits
- f. Tax Planning

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Outline the importance of performance management system

CO2 Analyse the various performance metrics.

CO3 Evaluate the different performance measurements

CO4 Illustrate the compensation structure and differentials.

CO5 Analyse the various types of wage incentives

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3		3					1,2
CO 2		3	3	3	2	3			2,5,6
CO3		3	3	3	2				2,4,5
CO 4		3	3	3	2				4,6
CO 5		3	3	3	2				5,6

IV. Course Materials

a. Mandatory

Bhattacharyya, D. K. (2011). *Performance management systems and strategies*. Pearson Publications.

Milkovich, G. T., Newman, J.M. & Gerhart, B. (2011). *Compensation*. (10th ed.). Tata McGraw-Hill Education.

b. Additional

Agunis, H. (2016). *Performance management*. (3rd ed.). Pearson Publications.

Goel, D. (2009). *Performance appraisal and compensation management: A modern approach*. PHI Learning Pvt. Ltd.



Electives

Course Code: 23PBA4302 | Title: Organizational Change & Development | Credits: 3

I. Course Description

This course imparts students with the concepts of organizational change and development and makes them familiar with the process of Organizational Development interventions.

II. Course Objectives

1. To understand the nature and drivers of organizational change, differentiating between internal and external factors.
2. To identify and classify various types of organizational change and their impact on organizational strategies.
3. To explore prevalent models and theories of organizational change, and apply them to practical business situations.
4. To analyze the sources and manifestations of resistance to change within organizations and develop strategies to address them effectively.
5. To gain insights into the qualities and competencies required for OD practitioners to facilitate successful change initiatives.

III. Course Content

1. Organisational Change

- a. Nature of change- Internal & External changes
- b. Types of change
- c. Models of change
- d. Resistance to change

2. Organization development

- a. History of OD
- b. Values, assumption and beliefs of OD
- c. Models and theories of OD
- d. Foundations of OD

3. OD Practice

- a. OD practitioner qualities
- b. OD competencies

4. The Process of Organization Development

- a. Entering and Contracting
- b. Diagnosing
- c. Collecting, Analyzing, and Feeding Back Diagnostic Information
- d. Designing Interventions

5. OD Interventions

- a. Human Process Interventions
- b. Techno-structural Interventions
- c. Human Resource Interventions
- d. Strategic Change Interventions
- e. Organisational Transformation

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the need for change and the importance of developing skills to facilitate organizational changes.

CO2 Explain the models and theories of OD

CO3 Analyse the competencies and qualities of OD practitioner

CO4 Evaluate the process of OD in an organisation

CO5 Examine the OD interventions for various situations in an organisation

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3	3	3					K2
CO 2		3	3	3					K5
CO3		3	3	3	2				K4
CO 4		3	3	3	2			3	K5
CO 5		3	3	3	2			3	K4

VI. Course Materials

a. Mandatory

Cummings, T.G. & Worli, C G. (2015). *Organization development and change*. Cengage Learning.

b. Additional

French, W., Bell, C.H. & Veena, Jr. (2012). *Organizational development - Behavioural science interventions for organization improvement*. PHI.

Jones, G.R. (2012). *Organizational theory, design, and change*. Pearson Education.

Sharma, R.R. (2012). *Change management - Concepts and applications*. Tata McGraw Hill.



Elective

Course Code: 23PBA4303 | Title : Labour Codes II | Credits : 3

I. Course Description

This course provides a strong framework along with knowledge and understanding of the new code on wages in India. The students will understand the application of laws from a managerial perspective and labour law administration.

II. Course Objectives

1. To understand the changes in the new code on wages
2. To compare and classify the various types of wages
3. To learn the provisions of Provident fund, insurance and other employer obligations
4. To study the various employee benefits
5. To explore the models for social security measures for the gig workers.

III. Course Content

1. The Code on Wages-I

- a. Definitions
- b. Minimum Wages
- c. Components of Minimum Wages
- d. Fixing Working Hours
- e. Fixing Floor Wages
- f. Wages for Overtime work

2. The Code on Wages-II

- a. Payment of Wages
- b. Role of Advisory Board
- c. Deductions
- d. Payment of Bonus
- e. Payment of Dues, Claims and Audit
- f. Offences and Penalties

3. Employer Obligations

- a. Social Security Organisations
- b. Employees' Provident Fund
- c. Schemes and Contributions
- d. Employees State Insurance Corporation
- e. State Insurance Fund

- f. Benefits
- g. Payment of Gratuity

4. Employee Benefits

- a. Payment of Maternity Benefit
- b. Medical bonus
- c. Creche Facility
- d. Employees' Compensation
- e. Claim and Distribution of Compensation

5. Code on Social Security

- a. Social Security and Cess for Construction workers
- b. Social security for Unorganised, Gig and Platform workers
- c. Prevention of Sexual Harassment at the Workplace

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the changes in the new wage codes

CO2 Classify the various types of wages and the payment of bonus

CO3 Apply the provisions of Provident fund, insurance and other employer obligations in an organisation

CO4 Assess the different employee benefits

CO5 Discuss the various models of social security measures for the gig workers

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3	3	3	2	3		2	K2
CO 2		3	3	3	2	3		2	K4
CO3		3	3	3	2	3		2	K3
CO 4		3	3	3	2	3		3	K5
CO 5		3	3	3	2	3		3	K6

VI. Course Materials

a. Mandatory

The code on wages. (2020).

The code on social security. (2020).

b. Additional

Sinha, P.N.R. (2021). *Industrial relations, trade unions and labour legislations.* (3rd ed.). Pearson.



Electives

Course Code : 23PBA4304 | Title : Cross Cultural Management | Credits: 3

I. Course Description

This course provides an understanding of culture and management. It helps to develop the attitudes and behaviors desirable in an international environment. It offers a broad view of classic and contemporary thinking on cultural management.

II. Course Objectives

1. To understand the link between culture and management
2. To learn the effect of culture on the management of multicultural teams
3. To know the international cross-cultural differences
4. To study the cultural diversity in corporates
5. To evaluate cross cultural differences.

III. Course Content

1. Introduction to culture

- a. Importance of culture
- b. Cultural differences
- c. The historical origins of beliefs and values
- d. Communicating across cultures
- e. Cultural Identity
- f. The Culture of Industrial Civilization

2. Cultural diversity and multicultural teams

- a. Measuring cultural development
- b. Culture and ethics- Kohlberg
- c. Malcolm X- Relativism vs Development
- d. Respect cultural differences
- e. Stages of development

3. International Differences

- a. Gender differences
- b. International Sub Culture- Gender
- c. Multi ethnicity- religion- geography
- d. Hofstede's dimensions- Cultural mapping
- e. National cultures vs. organizational cultures

4. Professional cultures

- a. Organizational cultures
- b. Knowledge cultures
- c. Change in corporate culture
- d. Mergers and Acquisitions

5. Managing cross-culture

- a. Cross cultural effectiveness
- b. Managing global managers
- c. Conflict and Synergy
- d. Measuring cultural differences

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Compare different cultures and identity

CO2 Analyse the effect of culture on multicultural teams

CO3 Examine the differences in International sub culture and multi ethnicity

CO4 Analyze corporate culture and its various facets

CO5 Measure cross cultural effectiveness

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	3	3	3	3		3			K2
CO 2	3	3	3	3		3			K4
CO3	3	3	3	3		3		2	K4
CO 4	3	3	3	3				2	K4
CO 5	3	3	3	3				3	K5

VI. Course Materials

a. Mandatory

Thomas, D. (2008). *Cross - cultural management: Essential concepts*. (2nd ed.). SAGE Publications.

b. Additional

Browaeys, M. & Price, R. (2010). *Understanding cross- cultural management*. Pearson Publications.

Gannon, M. (2008). *Paradoxes of culture and globalisation*. SAGE Publications.



Electives

Course Code : 23PBA4305 | Title : Negotiation Management | Credit: 1

I. Course Description

This course enables the students to learn the negotiation techniques and strategies. It also focuses on the principles, the preparation and the practice of negotiating skills which combines theory with practical activities.

II. Course Objectives

1. To understand the fundamental principles of negotiation and integrative bargaining
2. To analyze the ethical dimensions of negotiation and its strategies
3. To know negotiation process that nurtures the relationship in the process

III. Course Content

1. Introduction to Negotiation

- a. Concept, Elements and Multiparty Negotiations
- b. Negotiation process
- c. Distributive bargaining
- d. Integrative bargaining

2. Negotiation Strategy

- a. Power and best alternative to negotiation and agreement
- b. Zone of Possible Agreement
- c. Key Strategy elements
- d. Impasse and Alternative Dispute Resolution

3. The Negotiation Process

- a. Ethics, Fairness and Trust in negotiation
- b. Influence of culture and gender
- c. Creativity and Value creation
- d. Agreement template
- e. Moving past stalemate
- f. Building relationship

IV. Course outcomes

By the end of this course a student will be able to

CO1 Apply both distributive and integrative bargaining strategies

CO2 Design negotiation strategies that align with different contexts and objectives

CO3 Evaluate the ethical aspects of negotiation process and its outcomes

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	3	3	2	2				K3
CO 2	2	3	3	2	2				K6
CO3	2	3	3	2	2	3			K5

VI. Course Materials

a. Mandatory

Lewicki, R.J., Saunders, D.M., & Barry, B. (2020). *Essentials of negotiation*. McGraw Hill.

b. Additional

Carrell, M. R. & Heavrerin, C.J.D. (2008). *Negotiating essentials: Theory, skills and practice*. Pearson Publications.



Electives

Course Code : 23PBA4306 | Title: Talent Management | Credit: 1

I. Course Description

It gives an overview to the organization's commitment to recruit, hire, retain, and develop the most talented and superior employees available in the job market.

II. Course Objectives

1. To understand the method of developing talent through knowledge, skills, competencies and strategies
2. To learn the talent integration, knowledge management and retention programs
3. Analyze the various stages in talent life cycle

III. Course Content

1. Talent Management-Focus on Excellence

- a. Strategy
- b. Knowledge, Values & Beliefs
- c. Modeling Excellence
- d. Skills
- e. Competencies

2. Talent Integration and Succession Planning

- a. Cultural Fit
- b. Induction programs
- c. Knowledge Management and Creation
- d. Leadership
- e. Succession Planning
- f. Retention Programmes

3. Talent Life Cycle

- a. Job Crafting
- b. Workforce Quality
- c. Assessment and Evaluation
- d. Talent Cycle
- e. Rewards and Recognition
- f. Return on Investment
- g. Job EQ Tools
- h.

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Examine the method of developing talent through knowledge and skills

CO2 Design leadership succession plans and talent retention programmes

CO3 Analyze the various stages in talent life cycle of an organization

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K level
CO 1		3		3					K4
CO 2	2	3		3		3			K6
CO3		3	3	3		3			K3

VI. Course Materials

a. Mandatory

Merlevede, P. (2013). *Talent management: A focus on excellence managing human resources in a knowledge economy*. Bookboon e-publishing company.

b. Additional

Ariss, A.A. (2014). *Global talent management: Challenges, strategies, and opportunities*. Springer Publications.

Shukla, R. (2009). *Talent management: Process of developing and integrating skilled workers*. Global India Publications.

IT & Analytics

Electives

Semester IV



Elective Course

Course Code: 23PBA4401 | Title : Deep Learning and Artificial Intelligence | Credits:3

I. Course Description

This course is intended to give a holistic understanding on Deep Learning and Artificial Intelligence and its applications. This course trains the students to basic of neural networks, convolutional neural networks, long and short-term memory networks.

II. Course Objectives

1. To understand the basics of Neural Network and their platforms.
2. To analyse the various deep learning libraries to solve the problem.
3. To examine the different architectures of Artificial neural networks.
4. To know the program to use reinforcement and Convolutional Neural Networks.
5. To study the Artificial Intelligent Systems and review their applications.

III. Course Content

1. Deep Learning

- a. Deep learning architectures
- b. Biological neural network
- c. Artificial neural Networks
- d. Perceptron
- e. Deep Neural network
- f. Recurrent Nets, Auto Encoders

2. Platform and Libraries

- a. H2O.ai
- b. Dato Graph Lab
- c. Tensorflow
- d. Theano, Deeplearning4j
- e. Torch, Caffe

3. Architecture of Artificial Neural Networks

- a. Recurrent Neural networks
- b. Memory Augmented Neural Networks
- c. Differentiable Neural Computers

4. Reinforcement and Convolution Learning

- a. Markov Decision Processes
- b. Boltzmann Machine
- c. DeepQ-Networks
- d. Multiple Layer Perceptron
- e. Markov Chain Monte Carlo Methods
- f. Convolution Operations

5. Artificial Intelligence

- a. Application Areas
- b. Cognitive Computing (Perception, Learning, Reasoning)
- c. Non-AI & AI Techniques
- d. Intelligent Agents and Environments
- e. Concept of rationality, the
- f. Nature of environments
- g. Structure of agents
- h. Problem solving agents

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the basics of Neural Network and their platforms.

CO2 Apply the various deep learning libraries to solve the problem.

CO3 Examine the different architectures of Artificial neural networks.

CO4 Evaluate the program to use reinforcement and Convolutional Neural Networks.

CO5 Discuss the Artificial Intelligent Systems and review their applications.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2			3			2	1	K2
CO 2	2			3		2	2		K3
CO3	2			3		2	1	2	K4
CO 4	2			3			2		K5
CO 5	2			3			2	2	K2

V. Course Materials

a. Mandatory

1. Buduma, N., & Locascio, N. (2017). *Fundamentals of deep learning: Designing next-generation machine intelligence algorithms*. (1st ed.). O'Reilly Media.
2. Tom, T. (2019). *Artificial intelligence basics: A non-technical introduction*. A Press.

b. Additional

1. Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep learning (adaptive computation and machine learning series)*. MIT Press.
2. Russell, S., & Narvig, P. (2015). *Artificial intelligence - Modern approach*. (3rd ed.). Pearson Education.



Elective Course

Course Code: 23PBA4402 | Title : Digital Analytics | Credits: 3

I. Course Description

The course gives the knowledge on digital analytics, social network analytics and search engine optimization. It also deals the applications of digital analytics.

II. Course Description

1. To learn the concepts of Digital Analytics
2. To apply the various techniques of Social Network Analytics
3. To analyse the techniques of stream Analytics
4. To study the various techniques of search engine optimization to solve the problem
5. To know the latest applications of Digital Analytics

III. Course Content

1. Digital Analytics

- a. Types of digital analytics
- b. Social Listening frame work
- c. Social Intelligence

2. Social Network Analytics

- a. Social network communities
- b. User generated communities
- c. Social Media Analytics
- d. Content and Theme Analysis

3. Stream Analytics

- a. Click Stream Analytics
- b. Click Density Analytics
- c. Pay per click Analytics
- d. Web Log file Analysis

4. Search Engine Optimization

- a. Keyword Search
- b. On page SEO audit
- c. Link analysis
- d. Search Engine Marketing Analytics
- e. Email Campaign
- f. Social Media Market Analytics

5. Application of Digital Analytics

- a. Google Analytics
- b. LinkedIn Analytics
- c. Twitter Analytics
- d. Retail and sales analytics
- e. Digital Analytics stack
- f. Health services

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the concepts of Digital Analytics

CO2 Apply the various techniques of Social Network Analytics

CO3 Analyse the techniques of stream Analytics

CO4 Evaluate the various techniques of search engine optimization to solve the problem

CO5 Discuss the latest applications of Digital Analytics

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2			3			2	1	K2
CO 2	2			3		2			K3
CO3	2			3	2	2	1	2	K4
CO 4	2			3		1			K5
CO 5	2			3	2		2	2	K2

VI. Course Materials

a. Mandatory

Clifton, B. (2012). *Advanced web metrics with google analytics*. (3rd ed.). Wiley India.

b. Additional

Kaushik, A. (2013). *Web analytics 2.0*. (1st ed.). Sybex.

Gnais, M., Avinash, K. (2015). *Social media analytics: Techniques and insights for extracting business value out of social media*. IBM Press.



Elective Course

Course Code: 23PBA4403 | Title: Block Chain and Business Applications | Credits: 3

I. Course Description

This course gives an introduction of Block Chain Technology and its applications. This course deals the basic of bitcoin transactions in the cryptocurrency

II. Course Description

1. To learn the basics of Distributed systems
2. To study use of Cryptocurrency systems
3. To know the different Ethereum Tools for transactions
4. To analyse the smart contract systems
5. To examine the Block chain applications and its development

III. Course Content

1. Introduction

- a. Distributed Systems
- b. Distributed Hash Table
- c. Block, Miner, Block reward
- d. Centralized and decentralizes system
- e. Types of block chain

2. Cryptocurrency

- a. Types of Cryptocurrency and Cryptography
- b. Block Chain Works
- c. Hash Encryptions
- d. Digital Signature
- e. Memory Hard Algorithm
- f. Bitcoin, Bitcoin Wallet and Bitcoin Exchange
- g. Merkle Tree

3. Ethereum Tools

- a. Ethereum node
- b. Tokens, Proofs
- c. Ethereum Tools
- d. Ethereum transactions

4. Smart Contracts and Hyperledger

- a. Distributed ledger technology
- b. Smart contracts
- c. Hyperledger Fabric – Transaction Flow
- d. Immutable records

5. Block Chain Applications

- a. Applications
- b. New Development of Block chain applications

IV. Course Outcomes

By the end of this course a student will be able to

CO1 Understand the basics of Distributed systems

CO2 Analyse the use of Cryptocurrency systems

CO3 Apply the different Ethereum Tools for transactions

CO4 Evaluate the smart contract systems

CO5 Discuss examine the Block chain applications and its development

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3	2		2	1	K2
CO 2				3		2			K3
CO3				3	2	2	1		K4
CO 4				3		1			K5
CO 5	2			3	2		2	2	K2

VI. Course Materials

a. Mandatory

1. Antony, L. (2018). *The basics of bitcoins and blockchains: An introduction*. Mango Publishing Group.
2. Saurabh, K. & Saxena, A. (2020). *Blockchain technology: Concepts and applications*. Wiley India.

b. Additional

1. Antonopoulos, A.M. (2017). *Mastering bitcoin*. (2nd ed.). O'Reilly Media.
2. Danial, K. (2019). *Cryptocurrency investing for dummies*. Wiley India.



Elective Course

Course Code: 23PBA4404 | Title: Cyber Security | Credits: 3

I. Course Description

This course introduces the students to understand the concept of cyber security and help them to identify the security threats, types and models. The students will be able to identify the network security models and their applications.

II. Course Objectives

1. To explain the basics in Cybersecurity.
2. To learn the concept of cryptography and network security.
3. To explain the techniques for application security.
4. To apply different techniques to solve cyber security threats.
5. To examine the importance of Policy and cyber security awareness

III. Course Content

1. Cyber Security Awareness

- a. NSTISSC
- b. Information assurance
- c. Security Threats and vulnerabilities
- d. Security Standards
- e. OSI Security Architecture

2. Cryptography and Network security

- a. Symmetric and Asymmetric Cryptography
- b. Modern Cryptography
- c. Intrusion Prevention
- d. Detection and Management
- e. Firewall, Computer Forensics
- f. Security for VPN and Next Generation Networks.

3. Host and Application security

- a. Control hijacking
- b. Software architecture and a simple buffer overflow
- c. Side-channel attacks

4. Mobile Security

- a. Mobile, GSM and Wireless LAN security
- b. Malware - Viruses and worms

5. Policy and Security Awareness

- a. National cyber security Policy
- b. Cyber Security Awareness

IV. Course Outcomes

At the end of the course, the students will be able to:

- CO1** Understand the basics in Cybersecurity.
- CO2** Analyse the concept of cryptography and network security.
- CO3** Examine the concept of host and application security.
- CO4** Apply different techniques to solve cyber security threats.
- CO5** Discuss the importance of Policy and cyber security awareness

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3			2		K2
CO 2		3		3			2		K4
CO3		3		3					K4
CO 4		3		3					K3
CO 5		3		3			2	2	K2

VI. Course Materials

a. Mandatory

Whitman, M.E., & Mattord, H.J. (2017). *Principles of information security*. (6th ed.). Vikas Publishing House.

b. Additional

1. Nelson, B., Phillips, A. & Steuart, C. (2018). *Guide to computer forensics and investigations*. (6th ed.). Cengage Learning.
2. Bishop, M. (2015). *Computer security: Art and science*. (1st ed.). Addison-Wesley Professional.



Elective Course

Course Code: 23PBA4405 | Title : Data Visualization | Credits: 1.5

I. Course Description

This course gives an overview of visualization tools and introduces the students to different visualization techniques in Business Analytics. The students will analyse and resolve business problems through the Tableau tool.

II. Course Outcomes

1. To learn the importance of data visualization
2. To study techniques of data visualization in Tableau
3. To prepare sample dashboards using visualization tools

III. Course Content

1. Tableau - I

- a. Menu
- b. Data Sources
- c. Extract data
- d. Data join and blending

2. Tableau - II

- a. Worksheets with tableau
- b. Sorting and filtering
- c. Charts

3. Dashboard

- a. Creating sample dashboard for business
- b. Create Story Board for business

IV. Course Outcomes

At the end of the course, the students will be able to:

- CO1** Understand the importance of data visualization and basics of tableau
- CO2** Analyse techniques of data visualization in tableau
- CO3** Create dash and story board

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3			2		K2
CO 2				3			2		K4
CO3				3					K6

VI. Course Materials

a. Mandatory

Milliga, J. (2019). *Learning tableau 2019: Tools for business intelligence, data prep, and visualization analytics*. (3rd ed.). Packt Publishing.

b. Additional

Murray, D.G. (2016). *Tableau your data!: Fast and easy visual analysis with tableau software*.(2nd ed.). John Wiley and Sons, Inc.



Elective Course

Course Code : 23PBA4406 | Title: Emerging Technologies | Credit: 1

I. Course Description

This course introduces the students to the comprehensive and in-depth knowledge of emerging technologies and its business usage.

II. Course Objectives

1. To learn the basic concept in IoTs and its applications.
2. To understand the basics of cloud computing and edge computing
3. To examine the various intelligent tools for business transformation

III. Course Content

1. Internet of Things

- a. IoT Strategic and Innovation
- b. IoT Applications
- c. IoT with Industry
- d. M2M and WSN Protocol
- e. Architecture for WoT
- f. Smart Cities, Smart Grid, Mobility and Transport

2. Cloud Computing

- a. Basics of Fog and Edge Computing
- b. Introduction to Cloud Computing
- c. Types of Cloud Services
- d. Virtualization Architectures
- e. Cloud Vendors

3. Intelligent Apps and Cognitive computing

- a. DevOps Architecture
- b. Business Apps
- c. STRIDE Threat Model
- d. 5G Technology
- e. Quantum Computing

IV. Course Outcomes

At the end of the course, the students will be able to:

CO1 Understand the basic concept in IoTs and its applications

CO2 Discuss the basics of cloud computing and edge computing

CO3 Analyse the various intelligent tools for business transformation.

V. COs - POs - K Levels Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1				3			2		K2
CO 2				3			2		K2
CO3				3				2	K4

IV. Course Materials

a. Mandatory

Kumar, P., Tomar, A. & Sharmila, R. (2022). *Emerging technologies in computing: Theory, practice, and advances*. (1st ed.). CRC Press.

b. Additional

Anderson, J. M., Khan, F. A. (2021). *Digital transformation using emerging technologies: A CxO's guide to transform your organization*. Amazon Digital Services LLC - KDP Print US.

Supply Chain Management

Electives

Semester IV



Electives

Course Code: 23PBA4501 | Title: Global Supply Chain Management | Credits: 3

I. Course Description

The development of international trade is driven by international logistics and management and the provision of the global supply chain. The ultimate objective of global supply chain management is to link the marketplace, distribution network, manufacturing and procurement.

II. Course Objectives

1. To understand the principles and concepts of supply chain management from a global business perspective.
2. To evaluate the production/service process in a global context.
3. To learn the distribution network process in a global context.
4. To know the importance of the mathematical models.
5. To apply the models related to supply chain management.

III. Course Content

1. Introduction to global supply chain management

- a. Role of the Supply Chain
- b. Managing the Supply Pipeline for Global Trade Flows
- c. The Global Logistics Operator
- d. Comparison Between National and International Logistics
- e. Globalization and International Trade Environment.

2. Factors and Challenges Driving Logistics and Supply Chain Management

- a. Factors Driving Global Supply Chain Management
- b. Customs and Global Supply Chain Management
- c. Management of the Inventory in the Supply Chain
- d. Analysis Including Vendor Management
- e. Evolution and Revolution of Logistics and Supply Chain Management
- f. Modern Logistics Concepts

3. Constituents of the International Procurement

- a. Introduction
- b. International Purchasing Systems Strategy
- c. Financing Global Supply Chain

4. International Logistics Operator:

- a. Criteria of Selecting the Third-Party Logistics Operator
- b. Contract Logistics
- c. Warehousing- Customs Clearance
- d. Air Freight

5. International Logistics Procedures:

- a. Shipment Procedures
- b. Dispatch Time Data
- c. Statutory Reporting
- d. Profitability Analysis

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Identify the art of using the concept of GSCM.

CO2 Use the application of inventory models in decision-making.

CO3 Apply the art of selecting the vendors.

CO4 Analyse the constituents of the international procurement.

CO5 Apply the knowledge gained to choose the appropriate international logistics operator.

V. COs-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3			2		K2
CO 2		3		3			2		K4
CO3		3		3					K4
CO 4		3		3					K3
CO 5		3		3			2	2	K2

VI. Course Materials

a. Mandatory

Branch, AE [2009], Global SCM and International Logistics [1 ed.], Roulledge.

b. Additional

Materials will be given by course coordinators



Electives

Course Code: 23PBA4502 | Title: Service Process Management | Credits: 3

I. Course Description

This course examines both traditional and new approaches in achieving operational competitiveness in service businesses. It addresses the strategic analysis conundrum and operational decision-making.

II. Course Objectives

1. To understand the service process management principles and practice.
2. To know the different service strategies
3. To apply the concepts of service management process.
4. To evaluate the different cost areas in service management
5. To analyse the performance measurement

III. Course Content

1. Introduction to service operations

- a. The service concept, changing paradigms in the competitiveness of services
- b. Services – Manufacturing Continuum.

2. Developing Service Strategy

- a. Service Positioning
- b. Implications for service delivery design
- c. Service enhancement using the Internet
- d. Pricing strategies in services.

3. Issues in service operations

- a. In service systems
- b. Queuing theory applications in service operations

4. Quality drivers

- a. Customer satisfaction and delivery of service
- b. Quality improvement methods
- c. Identifying customer expectations

5. Performance Measurement

- a. Performance Bar
- b. Linking operations decisions to business
- c. Developing performance strategies

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Analyse the service process management roles and Principles.

CO2 Applying the Service Management concepts in Various types of businesses

CO3 Apply queuing theory on the issues of service operations

CO4 Evaluate the various quality improvement methods

CO5 Assess the different performance strategies

V. COs-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3			2		K3
CO 2		3		3			2		K4
CO3		3		3					K4
CO 4		3		3					K5
CO 5		3		3			2	2	K5

VI. Course Materials

a. Mandatory

Clark, G., Johnston, R. (2008). *Service operations management: Improving service delivery*. Financial Times/Prentice Hall.

b. Additional

Wright, J. N. (1999). *The management of service operations*. Cassell.



Electives

Course Code: 23PBA4503 | Title: Supply Chain Risk Modeling and Management | Credits: 3

I. Course Description

As the nature of supply chains evolves with increasing globalization, consolidation and just in time inventories, the amount of risk continues to increase. This course enables the students to get an insight on valuable perspectives on supply chain vulnerabilities. With emphasis on data, models and modeling systems the students can analyze supply chain planning problems.

II. Course Objectives

1. To identify Business Models
2. To understand the simulation models
3. To know the types of inventory control models
4. To understand the risk in supply chain
5. To know the latest trends in the SCM

III. Course Content

1. Models for Supply Chain Management

- a. Integrated Planning and Models for SCM
- b. Modeling Systems
- c. Transportation Network data
- d. Integrating Supply Chain & Demand Management

2. Simulation Model

- a. Introduction to Simulation Model
- b. Deterministic Simulation - Monte Carlo Simulation
- c. Application to Business Decision Making

3. Inventory Control

- a. Introduction to Inventory Theory
- b. Deterministic Models
- c. Probabilistic Models
- d. ABC Classification

4. Risk and Management

- a. Risk in the Supply Chain
- b. Features of risk
- c. Decision with Uncertainty
- d. Decision Tree Model

5. Trends in Supply Chain Management

- a. Integration of Supply Chain
- b. Cost Reduction
- c. Outsourcing
- d. Changing Practices in Logistics
- e. Approaches in Risk Management

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Analyze the different models for SCM.

CO2 Apply the simulation concepts

CO3 Examine inventory Control techniques and its application.

CO4 Evaluate the risks using decision tree model

CO5 Understand the current trends in the SCM

V. COs-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3					K3
CO 2				3		3		3	K4
CO3				3				3	K4
CO 4		3	3	3					K5
CO 5		3		3					K2

VI. Course Materials

a. Mandatory

Gregory L. Schlegel , Robert J. Trent Supply Chain Risk Management: An Emerging Discipline (Resource Management) Hardcover – Import, 3 Nov 2014.

b. Additional

Donald Waters – Supply Chain Risk Management, Published by the Chartered Institute of Logistics & Transport, U.K



Electives

Course Code: 23PBA4504 | Title: Enterprise Resource Planning | Credits: 3

I. Course Description

This course familiarises the students with ERP, ERP Module, SCM and CRM and its application in business related decisions.

II. Course Objectives

1. To know the fundamentals of enterprise system
2. To understand the basics of ERP software
3. To learn key concepts in ERP Modules
4. To understand the ERP Selection Process
5. To learn the maintenance of ERP

III. Course Content

1. Enterprise system

- a. Overview of enterprise systems Evolution
- b. Risks and benefits
- c. Fundamental technology
- d. Issues to be consider in planning design and implementation of cross functional integrated ERP systems

2. ERP software

- a. Overview of ERP software solutions
- b. Small medium and large enterprise vendor solutions,
- c. Business process Management

3. ERP Modules

- a. Overview of ERP modules
- b. Sales and Marketing,
- c. Accounting and Finance
- d. Materials and Production management

4. ERP Selection Process

- a. Planning Evaluation and selection of ERP systems
- b. Implementation life cycle
- c. ERP implementation, Methodology and Frame work
- d. People Organization in implementation- Consultants, Vendors and Employees

5. ERP Maintenance

- a. Maintenance of ERP
- b. Latest trends in ERP

IV. Course Outcomes

By the end of this course, a student will be able to

- CO1 Analyse enterprise systems
- CO2 Understand the benefits and limitations of ERP software
- CO3 Evaluate ERP Modules
- CO4 Evaluate the ERP implementation methodologies
- CO5 Understand the maintenance of ERP

V.CO-S-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1		3		3				3	K3
CO 2		2		2		2		3	K2
CO3		2		3				3	K5
CO4		3	3	3					K5
CO 5		3		3				3	K2

VI. Course Materials

a. Mandatory

Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.

b. Additional

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2006.
2. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008
3. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2006.



Electives

Course Code: 23PBA4505 | Title: Multimodal Transportation | Credit: 1

I. Course Description

This course introduces different transport facilities available and the possible forms of containerization.

II. Course Objectives

1. To identify the Multimodal Transport facility
2. To know the different types of containers
3. To understand the regulations related to transport

III. Course Content

1. Introduction to Multimodal Transport

- a. Definitions
- b. MTO, MTD, MTC, concepts and benefits
- c. challenges faced and reforms.
- d. Multimodal transport in India.

2. Containerization

- a. Types of containers
- b. Benefits of containerization
- c. Growth prospects of trade with containerization
- d. Different Transport Structures in India

3. National Laws

- a. National Law on Transport
- b. Multimodal Transportation Goods (Amendment) Act, 2000
- c. International Conventions on Intermodal transport
- d. Regulations concerning dangerous goods regulations

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Compare the different transport modalities available

CO2 Analyse the different types of containers

CO3 Understand the law prevailing to multimodal transportation

V. COs-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	3							K4
CO 2		3	3						K3
CO3		3	3	3				3	K2

VI. Course Materials

a. Mandatory

Container and Multimodal Transport Management – Hariharan K.V. – Shroffs
Publishers & Distributors

b. Additional

International Trade Logistics-Ram Singh- Oxford Publication.



Electives

Course Code: 23PBA4506 | Title: Introduction to Data Envelopment Analysis | Credit: 1

I. Course Description

DEA is used to empirically measure productive efficiency of decision-making units (DMUs). Although DEA has a strong link to production theory in economics, the method is also used for benchmarking in operations management, whereby a set of measures is selected to benchmark the performance of manufacturing and service operations.

II. Course Objectives

1. To grasp the key aspects of DEA.
2. To analyze and apply concepts related to DEA
3. To understand the decision making models.

III. Course Content

1. Introduction

- a. Introduction to Data Envelopment Analysis
- b. Decision Making Units [DMUs] –
- c. Fundamental Concepts of Effective
- d. Fractional Programming Problem
- e. Performance Based on single input and single output
- f. Performance Based on two input and a single output
- g. Strongly and Weakly Efficient DMUs

2. Mathematical Modelling of DEA

- a. Procedural Application of DEA
- b. Choose the DMU
- c. Selection of the Inputs and Outputs

3. CRS DEA and VRS DEA Models

- a. Constant Returns to Scale DEA Model [CRS DEA]
- b. Variable Returns to Scale DEA Model [VRS DEA]

IV. Course Outcomes

By the end of this course, a student will be able to

CO1 Analyse and compare different key aspects of the DEA model.

CO2 Evaluate the efficiency of various DMUs.

CO3 Evaluate the pros and cons of different models available in DEA.

V. COs-K Levels-POs Matrix

CO<>PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO7	PO8	K levels
CO 1	2	3		3					K1
CO 2		3	3	3					K3
CO3		3	3	3				3	K3

VI. Course Materials

a. Mandatory

Mariappan, P. (2016). Introduction to Data Envelopment Analysis [DEA]. LAP LAMBERT Academic Publishing.

b. Additional

Materials will be given by course coordinators